

# GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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## General Project Information

### Project Title

Scaling up the Green Legacy Initiative best practices to enhance the climate resilience of smallholder farmers and disadvantaged groups in Ethiopia

Region	GEF Project ID
Ethiopia	11416
Country(ies)	Type of Project
Ethiopia	FSP
GEF Agency(ies):	GEF Agency ID
UNEP	
Executing Partner	Executing Partner Type
Ethiopian Forestry Development (EFD)	Government
GEF Focal Area (s)	Submission Date
Climate Change	10/18/2023

### Project Sector (CCM Only)

Climate Change Adaptation Sector

### Taxonomy

Focal Areas, Climate Change, Climate Change Adaptation, Community-based adaptation, Ecosystem-based Adaptation, Climate resilience, Livelihoods, Least Developed Countries, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Influencing models, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches, Convene multi-stakeholder alliances, Stakeholders, Private Sector, SMEs, Individuals/Entrepreneurs, Capital providers, Large corporations, Financial intermediaries and market facilitators, Civil Society, Community Based Organization, Non-Governmental Organization, Academia, Communications, Public Campaigns, Strategic Communications, Awareness Raising, Beneficiaries, Type of Engagement, Consultation, Partnership, Information Dissemination, Participation, Local Communities, Gender Equality, Gender Mainstreaming, Women groups, Gender-sensitive indicators, Sex-disaggregated indicators, Gender results areas, Participation and leadership, Capacity Development, Capacity, Knowledge and Research, Knowledge Exchange, Peer-to-Peer, Field Visit, Innovation, Learning, Indicators to measure change, Theory of change, Adaptive management, Knowledge Generation, Training, Workshop, Enabling Activities

Type of Trust Fund	Project Duration (Months)
LDCF	48
GEF Project Grant: (a)	GEF Project Non-Grant: (b)
8,932,420.00	0.00
Agency Fee(s) Grant: (c)	Agency Fee(s) Non-Grant (d)
848,580.00	0.00
Total GEF Financing: (a+b+c+d)	Total Co-financing

9,781,000.00	27,500,000.00
PPG Amount: (e)	PPG Agency Fee(s): (f)
200,000.00	19,000.00
PPG total amount: (e+f)	Total GEF Resources: (a+b+c+d+e+f)
219,000.00	10,000,000.00
Project Tags	
CBIT: No NGI: No SGP: No Innovation: No	

### Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

Ethiopia’s mountainous topography and complex socio-economic composition make it highly vulnerable to the impacts of climate change. Despite significant gains made in recent decades by the Federal Government of Ethiopia (GoE) in addressing the country’s complex development challenges, the impacts of climate change are threatening the hard-won achievements of the GoE, and Ethiopia remains among the most food insecure and climate-vulnerable nations globally. In recent decades, Ethiopia has experienced increasing average temperatures (by 0.5°C–1°C since 1950), an overall shift in rainfall distribution and timing, and an increase in the frequency and intensity of climate hazards such as droughts and floods. The changing climate conditions are disrupting rural agricultural livelihoods, thereby accelerating a vicious cycle of landscape degradation and deforestation. This cycle is driven primarily by several baseline (non-climate) drivers of vulnerability which are related to a broad socio-economic transformation<sup>[1]</sup> that has been occurring in the country in recent decades, and is characterised by increasing pressure on the country’s climate-vulnerable natural resource base, a general decline in the delivery of critical ecosystem services required for maintaining agricultural productivity and rural livelihoods, and increasingly unsustainable natural resource use (detailed in Section A below). The impacts of climate change are accelerating this cycle by further increasing pressure on the dwindling natural resource base, leading to declining food security, intensifying rural poverty, youth migration and conflict over resources.

In rural areas of Ethiopia, the impacts of climate change are impacting vulnerable groups most severely – particularly women and children<sup>[2]</sup>. The disproportionate vulnerability of Ethiopian women to climate change is the result of several factors, including differences in time use, access to credit, constrained economic opportunities, limited access to public discussion and decision making, and insufficient gender disaggregation in data used for policy change<sup>[3]</sup>.

Under future climate conditions, the impacts of climate change are projected to intensify, with temperatures projected to continue to rise, precipitation patterns becoming more erratic and unpredictable, and droughts and floods becoming increasingly frequent and intense. Ultimately, this will lead to a further reduction in the viability of traditional agricultural livelihoods, accelerating the cycle of deforestation and land degradation and causing a continued decline in the delivery of critical ecosystem services just as climate-vulnerable communities increasingly depend on them.

The proposed project will disrupt the above cycle by strengthening the adaptive capacity and climate resilience of vulnerable communities in Ethiopia's midlands and highlands. Specifically, this will be achieved by scaling up best practices for ecosystem-based adaptation (EbA) implemented during Phase 1 of the GoE's flagship Green Legacy Initiative (GLI)<sup>[4]</sup> — a country-wide campaign aimed at socio-economic upliftment of the population through nature-based solutions and the restoration of forest ecosystems. By focusing specifically on climate change adaptation, the proposed LDCF project will form the foundation of Phase 2 of the GLI, thereby ensuring that the GoE's socio-economic objectives are achieved under current and future climate conditions.

The proposed project's strategy will encompass four interrelated components, including: i) enabling environment for climate change adaptation through scaling up climate-resilient GLI best practices<sup>[5]</sup>; ii) forest and agricultural landscape management for ecological and socioeconomic resilience in Ethiopia's midlands and highlands; iii) climate-resilient agricultural and nature-based livelihoods and economies; and iv) knowledge management, monitoring and evaluation, and resource mobilization for scaling up climate-resilient GLI best practices. Through the implementation of these components, the project will deliver several adaptation benefits, including: i) climate change adaptation across local communities through the increased resilience of natural assets, and diversified and strengthened livelihoods and sources of income; ii) increased area of forest and agricultural land managed for climate resilience; and iii) increased awareness of and training on climate change impacts and appropriate adaptation responses. Through Component 1, horizontal coordination and collaboration for adaptation will be strengthened at the landscape level, adaptation finance within the GLI will be scaled up and the generation and dissemination of climate data and information services for locally-specific climate-resilient GLI activities will be supported. This will be supported by the knowledge generated and disseminated Component 4, to strengthen the implementation of EbA across agro-ecological landscapes. Component 2 will see the demonstration of EbA (restoration, conservation and agroforestry) as a climate-resilient integrated landscape management approach, while Component 3 will support livelihood diversification, improved agricultural production and food security under climate change conditions, value addition and market linkages to build adaptive capacity. The approach of combining climate-sensitive restoration and management of upstream forests and agro-ecological landscapes with strengthening the climate-resilience of agricultural and natural resource-based livelihoods downstream, together with a strengthened enabling environment, enhanced knowledge base and scaled up finance, will therefore address both immediate and future adaptation needs.

Given the disproportionate impact of climate change on women in particular, the project will be strongly gender-responsive. The selection of interventions for the proposed project will promote the resilience of women, in line with findings and recommendations made in key documents such as UNDP's Gender Analysis for Ethiopia's Updated Nationally Determined Contribution<sup>[6]</sup>.

Ultimately, the proposed LDCF project will catalyze a transformation in the governance and implementation of forest landscape restoration across Ethiopia, thereby building on the GoE's past successes, contributing to the achievement of the country's climate change adaptation objectives described in its Nationally Determined Contribution (NDC), and setting the country on a path towards building a resilient green economy. The project will be implemented in three Regions within 6 Districts (Woredas) across 67,200 ha of Ethiopia's midlands and highlands, benefitting 300,000 people (at least 50% women).

The proposed project will be aligned with the three strategic priorities of LDCF, as outlined below.

- **Scaling up finance for adaptation** — By leveraging the successes of the GLI's first phase, drawing on its high-level political support, and increasing the awareness of GLI as an initiative that is not only focused on tree planting, but rather a strategy for sustainable economic development under current and future climate conditions. Importantly, the project will support the establishment of an adaptation finance scaling-up mechanism for the GLI, as part of the "GLI and Degraded Land Special Grant" which is currently undergoing governmental approval. Combined with the development of a resource mobilization strategy to catalyse additional investments from public and private sources, this will ensure that there is a continued flow of finance dedicated to adaptation interventions within phase 2 of the GLI, prioritising climate resilience. The proposed project will also strengthen collaboration between stakeholders working across agro-ecological landscapes in Ethiopia through the

establishment of a multistakeholder platform, thus supporting policy coherence for adaptation and the mobilization of further adaptation finance (Component 1).

- Innovation, technology transfer and private sector engagement** — The core avenue of project innovation is climate-proofing the interventions under the second phase of the GLI and ensuring that they are selected and designed to maximise adaptation benefits of the initiative. A key innovation area is the establishment of adaptation finance scaling-up mechanism for the GLI, as described above. A core aspect of the adaptation finance scaling-up mechanism will be the development of a resource mobilisation strategy that prioritises private sector engagement. The integration of climate change adaptation into the GLI’s second phase will also be supported by working closely with the National Meteorological Institute (NMI) to generate and analyse local level climate data, followed by the tailoring of results for the provision of climate information services for project target districts to inform climate-resilient forest landscape restoration and conservation, as well as climate-resilient productive livelihoods of vulnerable local communities. Climate change-related data and information will be combined with remote sensing, land degradation and restoration suitability data of the project target areas and the use of digital platforms such as openforis.org to ensure that agro-ecological landscape restoration, conservation and livelihood planning at the landscape-level is scientifically informed. This will be supported by a diverse approach to building vertical and horizontal capacity and coordination for EbA within the GLI, including transforming approaches to community forest management (CFM) to ensure that they consider climate change scenarios and appropriate responses. A final innovation of the project that will support the climate-resilient transformation of forest and agro-ecological landscape management under the GLI is the establishment of a long-term monitoring, evaluation and reporting system, which will allow approaches to pivot based on successes or failures, as well as for scaling up and replication to take place across the country.
- Whole-of-society approach** — By leveraging the broad support that already exists in Ethiopia for GLI. The initiative is supported by communities across the nation, with participation at all levels of society. The proposed project will leverage this support and direct it beyond GLI’s current focus to specifically focus on engaging Ethiopia’s population to act together to further improve land management practices, with the aim of supporting climate change adaptation and building climate resilience of communities.

[1] Described in detail under the section entitled ‘Baseline (non-climate) drivers of the stated problem’.

[2] World Bank. 2023. Ethiopia Country Profile. Available [here](#).

[3] World Bank. 2023. Ethiopia Country Profile. Available [here](#).

[4] Described in detail under ‘Alignment with country priorities’

[5] Climate-resilient GLI practices refers to interventions that will be implemented under Phase 2 of the GLI with a specific focus on climate change adaptation as well as enhancing the climate-resilience of existing (phase 1) interventions. This will include the implementation of GLI practices in such a way that their impacts are ensured under current as well as future climate conditions, ensuring that reforestation and other related interventions are designed with consideration of the potential impacts of droughts and floods, and that a landscape-level approach is ensured. For example, GLI Phase 2 will strongly focus on promoting planting of indigenous, drought tolerant tree species, considering the impacts of water availability for reforestation/afforestation interventions, while the preparation of planting areas will be prioritized to maximize water use efficiency. This information is presented in Section A, ‘Alignment with country priorities’

[6] Available [here](#).

## Indicative Project Overview

### Project Objective

Strengthen the climate change resilience of Ethiopia’s vulnerable communities through ecosystem-based adaptation (EbA) by scaling up Green Legacy Initiative (GLI) best practices

### Project Components

#### Component 1: Enabling environment for climate change adaptation through scaling up of climate-resilient GLI best practices

Component Type	Trust Fund
Technical Assistance	LDCF

GEF Project Financing (\$)	Co-financing (\$)
737,420.00	3,325,000.00

Outcome:

Outcome 1.1: Strengthened capacity for implementing and scaling up climate-resilient GLI best practices for EbA

Outcome 1.2: Adaptation finance scaled up within the GLI

Outcome 1.3: Enhanced adaptation benefits and climate resilience of GLI through tailored climate data and information services

Output:

Output 1.1.1: Capacity of 4 national-level institutions strengthened and 1 multistakeholder platform established for scaling up climate-resilient GLI best practices for EbA

Output 1.1.2: Capacity of 6 district-level governments built in a gender-inclusive manner for scaling up climate-resilient GLI best practices for EbA

Output 1.1.3: 120 community cooperative representatives trained in a gender-inclusive manner on climate-resilient community forest management (CFM), plantation forestry and agroforestry as EbA approaches

Output 1.2.1: GLI adaptation finance scaling-up mechanism and resource mobilization strategy established

Output 1.3.1: Climate data and information services provided to inform adaptation decision making and planning

## Component 2: Forest and agricultural landscape management for building ecological and socioeconomic resilience in Ethiopia's midlands and highlands

Component Type	Trust Fund
Investment	LDCF
GEF Project Financing (\$)	Co-financing (\$)
4,000,000.00	10,250,000.00

Outcome:

Outcome 2.1: Enhanced ecosystem services for building socioeconomic resilience through the restoration and conservation of degraded forests and landscapes

Outcome 2.2: Enhanced climate resilience of smallholder farmers and vulnerable groups through plantation forestry and agroforestry-based landscape restoration

Output:

Output 2.1.1: Climate-resilient restoration of 18,000 ha of degraded forest

Output 2.1.2: Climate-resilient conservation of 42,000 ha of intact and 18,000 ha of restored forest

Output 2.2.1: Climate-resilient plantation forestry and agroforestry-based restoration of 7,200 ha of degraded land

### Component 3: Climate-resilient agricultural and nature-based livelihoods and economies

Component Type	Trust Fund
Investment	LDCF
GEF Project Financing (\$)	Co-financing (\$)
3,000,000.00	10,250,000.00

Outcome:

Outcome 3.1: Climate-resilient and gender-responsive agricultural and nature-based livelihoods supported, and value chains and market linkages strengthened

Output:

Output 3.1.1: 3,000 vulnerable people supported to take up gender-responsive agricultural and nature-based livelihoods that promote climate resilience

Output 3.1.2: Communities trained on value addition for agricultural and nature-based products, financial management and entrepreneurship

Output 3.1.3: Key value chains, market linkages and private sector engagement for climate-resilient agricultural and nature-based products strengthened

### Component 4: Knowledge management, monitoring and evaluation (M&E) for scaling up climate-resilient GLI best practices

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing (\$)	Co-financing (\$)
500,000.00	2,095,000.00

Outcome:

Outcome 4.1: Knowledge to support scaling up of climate-resilient GLI best practices

Output:

Output 4.1.1: Long-term monitoring, evaluation and reporting system established for climate-resilient GLI best practices for EbA

Output 4.1.2: Knowledge management and communication strategy on climate-resilient GLI best practices developed and implemented

### M&E



Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing (\$)	Co-financing (\$)
270,000.00	300,000.00

Outcome:

Project M&E plan implemented

Output:

## Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
Component 1: Enabling environment for climate change adaptation through scaling up of climate-resilient GLI best practices	737,420.00	3,325,000.00
Component 2: Forest and agricultural landscape management for building ecological and socioeconomic resilience in Ethiopia's midlands and highlands	4,000,000.00	10,250,000.00
Component 3: Climate-resilient agricultural and nature-based livelihoods and economies	3,000,000.00	10,250,000.00
Component 4: Knowledge management, monitoring and evaluation (M&E) for scaling up climate-resilient GLI best practices	500,000.00	2,095,000.00
M&E	270,000.00	300,000.00
<b>Subtotal</b>	<b>8,507,420.00</b>	<b>26,220,000.00</b>
Project Management Cost	425,000.00	1,280,000.00
<b>Total Project Cost (\$)</b>	<b>8,932,420.00</b>	<b>27,500,000.00</b>

Please provide justification

## PROJECT OUTLINE

### A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

### **The problem that the proposed project will address**

The Federal Democratic Republic of Ethiopia (hereafter ‘Ethiopia’) is a landlocked country in East Africa bordered by Eritrea to the north, Djibouti and Somalia to the east, Sudan and South Sudan to the west, and Kenya to the south. Ethiopia’s mountainous topography and complex socio-economic composition make it highly vulnerable to the impacts of climate change, despite its negligible contribution to global GHG emissions. In recent years, Ethiopia has experienced increasing average temperatures (by 0.5°C–1°C since 1950), an overall shift in rainfall distribution and timing, and an increase in the frequency and intensity of droughts and floods. These changing climate conditions are exacerbating several baseline drivers of vulnerability which are related to a broad socio-economic transformation that has been occurring in the country in recent decades . Collectively, the combination of climate and non-climate drivers are causing a vicious cycle of landscape degradation and deforestation that is outpacing positive gains made in reforestation by the GoE, driving a widespread decline in the delivery of critical ecosystem services required for maintaining agricultural productivity and rural livelihoods, and reducing the viability of rural livelihoods. Ultimately, this adverse cycle causes increasing pressure on the dwindling natural resource base while climate impacts become increasingly intense, leading to declining food security, intensifying rural poverty, increasing youth migration and conflict over resources.

Despite significant gains made in recent decades by the Federal Government of Ethiopia (GoE) towards reducing food insecurity and poverty, the country remains among the most food insecure nations globally. Around Ethiopia, multiple areas — particularly in rural parts of the country — are experiencing high levels of acute malnutrition and hunger-related mortality, as well as rising levels of food insecurity and multi-dimensional poverty . Concurrently, the influx of rural youth to urban areas is a growing concern for policy- and decisionmakers. These migrants are driven by a lack of livelihood opportunities related to a decline in agricultural productivity and a decrease in landholding size and face numerous challenges that exist in most Ethiopian cities, including inter alia rising cost of living, inadequate housing, and unemployment . In urban areas, unemployment is already higher than in rural areas, and the youth are particularly impacted by unemployment.

In 2021, the rate of urban unemployment stood at 14%, with youth unemployment in urban areas standing at 23% . The overall rate of youth unemployment in rural areas is lower than in urban areas, at 12% in 2021, which reflects the trend in rural-urban migration and the challenges young people face after migrating. In addition, women tend to be even more likely to be unemployed in both urban and rural areas. In urban areas, the unemployment rate of women is higher than for men, at 29% and 16%, respectively . In rural areas, the unemployment rate for women is also higher than for men, at 16.4% and 7.4% . This is in line with the general trend in unemployment of women, which is at 2.9% compared with 1.7% for men . The proportion of female youth not in education, employment or training stands at 15.1% for women and 5.7% for men .

The growing populations of urban areas is placing further strain on limited services and infrastructure, as well as on the dwindling natural resource base in their surrounding areas . Collectively, the combination of the aforementioned problems is threatening to undermine the strong socio-economic development that has occurred in Ethiopia and the positive gains made by the GoE in arresting the rate of deforestation in recent decades and undermining its efforts to become food self-sufficient and to develop a green economy. In the absence of intervention, climate change will continue to exacerbate the adverse effects of Ethiopia’s baseline challenges, thereby reduce the viability of traditional agricultural lifestyles, accelerating the cycle of deforestation and land degradation and ultimately causing a further reduction in the delivery of critical ecosystem services and a decline in the climate resilience of rural communities. A diagram summarizing the interconnected climate and non-climate drivers of the problem is presented in Figure 1, with a full Problem Tree showing specific climate impact pathways in Figure 2. The diagrams are followed by a description of both climate and non-climate drivers of vulnerability in Ethiopia .

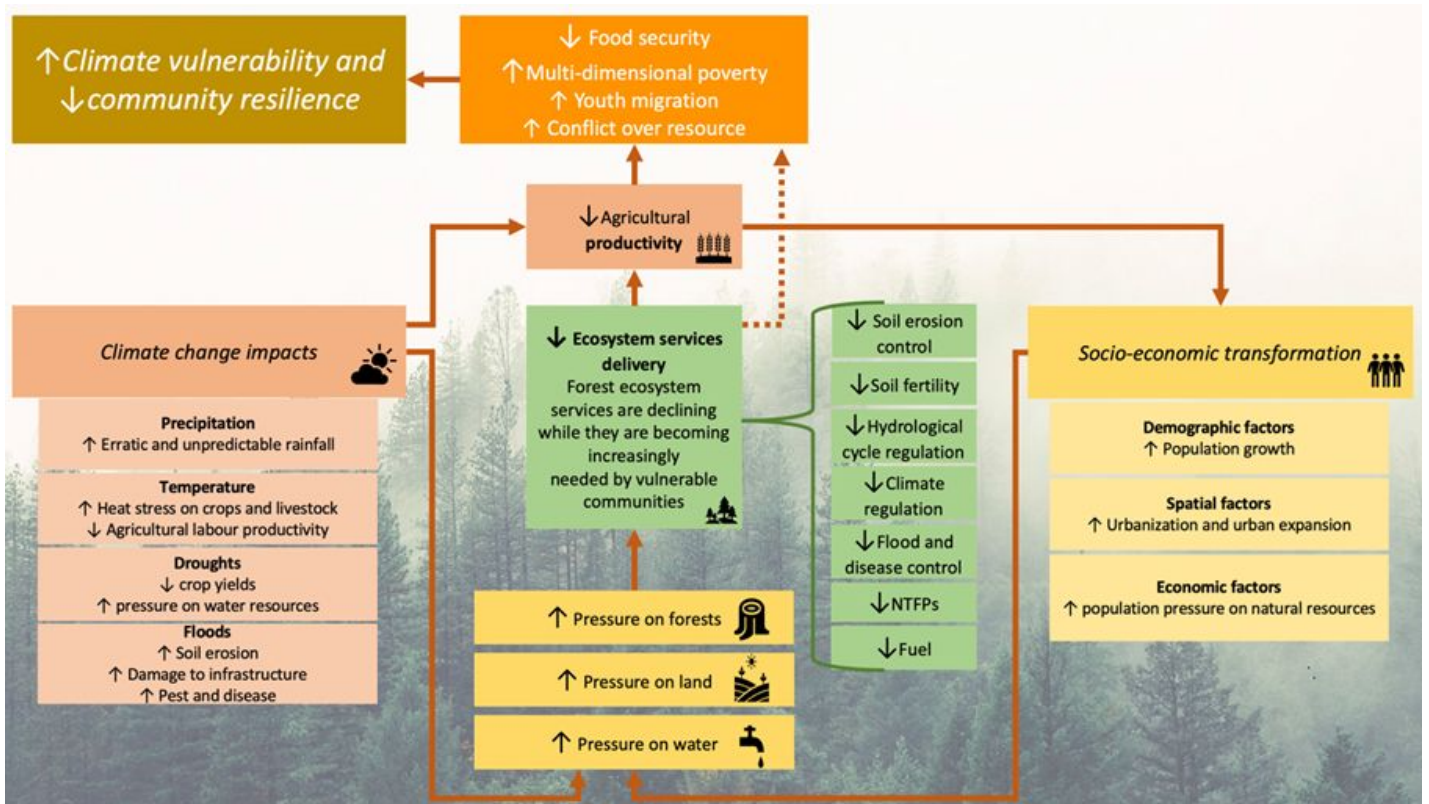


Figure 1. The interaction of climate and non-climate drivers leading to decreasing food security and intensifying multi-dimensional poverty.

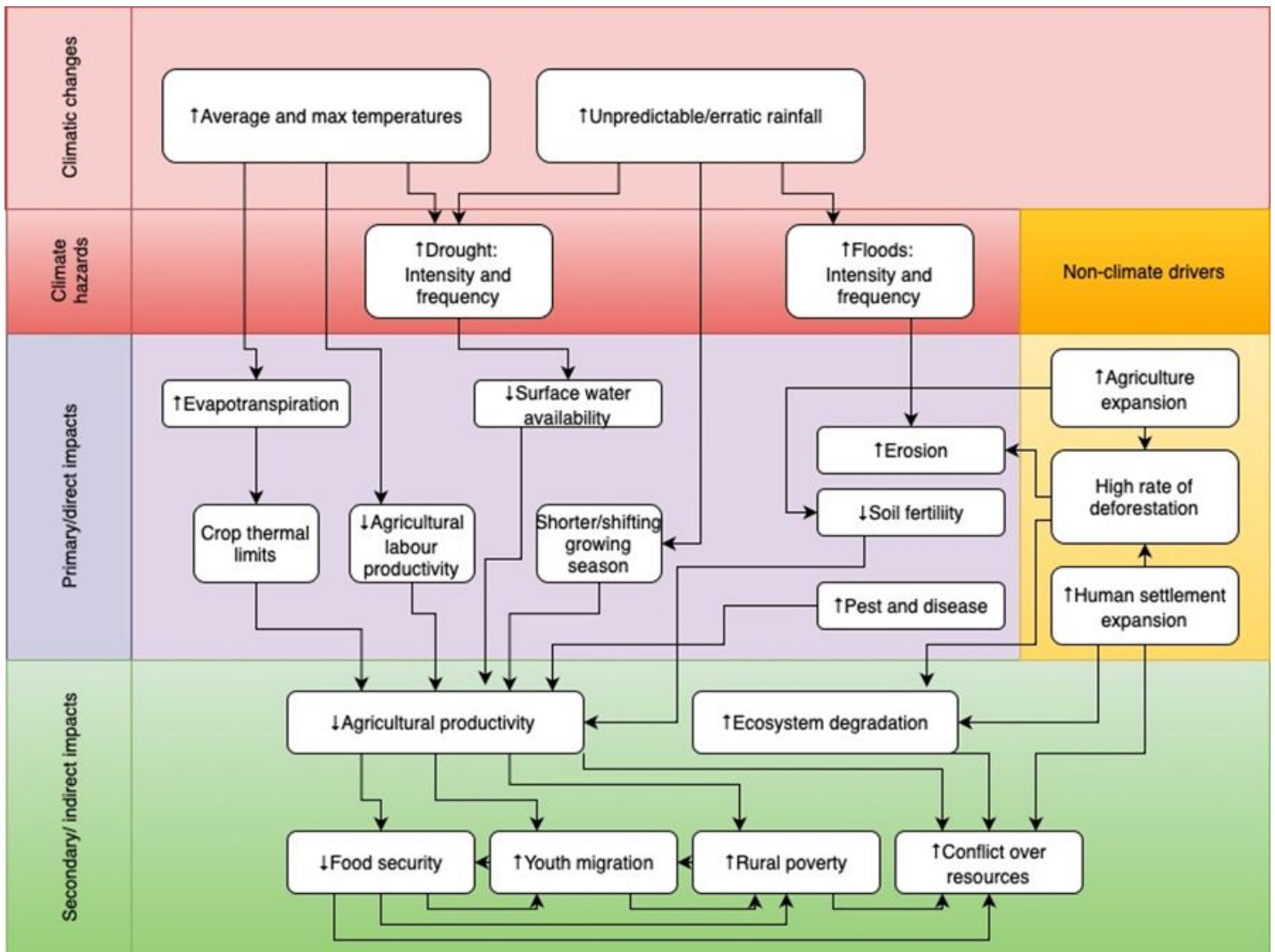


Figure 2. Problem tree diagram showing the interactions between non-climate and climate-related drivers of vulnerability.

## Drivers of the stated problem

The problem described above has several direct and indirect non-climate drivers, all of which are ultimately being exacerbated by the impacts of climate change. The sections below provide a summary of the baseline (non-climate) and climate-related drivers of the stated problem.

### Baseline (non-climate) drivers of the problem

The main non-climate drivers of the problem are classified into *immediate causes (direct)*, and *underlying causes* and *root causes (indirect)*. The different causes are summarized in Figure 3 below, followed by a brief description.

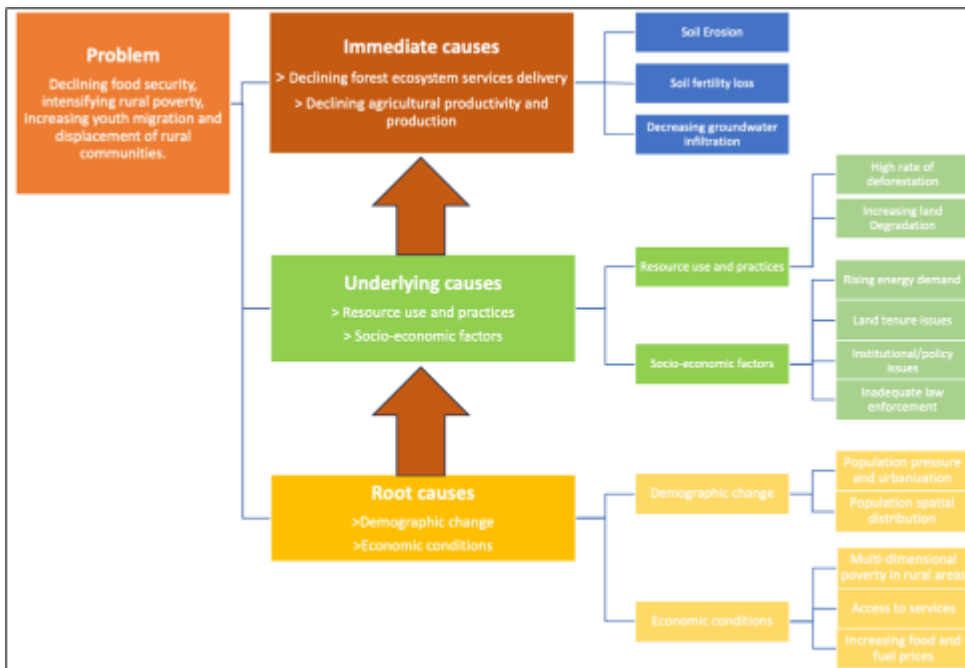


Figure 3. Non-climate related (baseline) drivers of the stated problem.

### Immediate causes

The immediate cause of decreasing food security, intensifying rural poverty, rising youth migration and conflict over resources is a general decline in agricultural productivity, and the capacity of forest and agricultural landscapes to deliver critical ecosystem services required for agricultural production and natural resource-based livelihoods (specifically those related to soil and water). This is primarily occurring through three pathways, namely: i) increasing soil erosion; ii) declining soil fertility; and iii) decreasing rates of groundwater infiltration. Soil erosion and soil fertility loss are critical problems in rural areas of Ethiopia. The loss of quantity and quality of topsoil is occurring in conjunction with a decline in groundwater infiltration and an increase in run-off. The loss of ecosystem services is reducing the contribution of forests to food security and local economic development, as well as contributing to a decline in agricultural productivity. This further deteriorates the capacity of the natural environment to support the livelihoods of increasingly climate-vulnerable rural communities, causing them to resort to the unsustainable use of dwindling forest resources. To counter the impacts of decreasing water security, consultations with local communities have revealed that water infrastructure is required to improve crop productivity. Specifically, women in consulted communities reported the need for finance to expand and enhance water harvesting and small-scale irrigation systems used for agriculture and agroforestry initiatives.

### Underlying causes

The underlying causes of declining ecosystem services delivery (which in turn contributes directly to the stated problem) are associated with: i) unsustainable resource uses and practices — including deforestation and land degradation; and ii) socio-economic factors — including energy demand, institutional and policy issues, land tenure and law enforcement. A brief outline of these problems is provided below.

- **Deforestation:** At the beginning of the 20th century, forests covered 30% of Ethiopia's land area. By 2020, however, this percentage had decreased to 15% (compared with regional average of 30%), . Between 2002 and 2022 alone, Ethiopia lost approximately 4% (467,000 ha) of its total tree cover and 4.5% (84,100 ha) of its humid primary forest. While the GoE has shown its commitment to reversing this trend, and anecdotal evidence suggest that the rate of deforestation has declined in recent years, the replacement rate has not kept pace with the current rate of deforestation which is still high. Deforestation in Ethiopia is primarily the result of the conversion of forest landscapes for agricultural purposes by both smallholders and commercial farmers, as well as for urban expansion. As the productivity of agricultural land decreases and the rural population grows (see Root Causes below), communities are compelled to expand their fields into forested land to maintain their food supply.

- **Land degradation:** More than 85% of Ethiopia's land is degraded to some degree. Land degradation has been caused largely by the rising demand for energy from biomass in the growing urban areas around the country, which is causing an increase in the overharvesting of woodfuel, resulting in land degradation. Land degradation is already affecting vulnerable rural households across Ethiopia. According to one study, 80% of households reported that land degradation has adversely impacted their crop yields and livestock production. Specifically, 54 million ha of land is degraded country-wide; and 11 million ha is severely degraded and at risk of desertification. Land degradation is a problem that affects rural women particularly severely. Research has shown that female farm plot managers tend to be older, more likely to be divorced or widowed, with lower education levels and larger families (with more dependents who are either younger than 10 years or older than 65). In general, these women tend to be less wealthy than other plot managers and tend to manage plots of land that are smaller than those managed by males. Access by these women to non-land farm inputs is also lower than for male farmers. Other factors also contribute to the disproportionate impact of land degradation on women. These include their lower access to agricultural extension programmes and limited access to credit. These factors show that the reduction in productivity caused by land degradation is particularly severely experienced by women.
- **Institutional and policy issues:** Although government interventions have been successful at improving the management of ecosystems across the country, land-use policies and institutional instability, limited institutional capacity and poor cross-sectoral coordination remain prevalent. Given the size of Ethiopia's land area and population, the challenges the country is facing are immense and there remains gaps in terms of institutional responses to ecosystem services decline. Institutional capacity for ecosystem management remains very low.
- **Land tenure:** In rural areas of Ethiopia, a shift is occurring from traditional communal grazing systems to private land ownership. This is coinciding with the weakening of customary institutions, curtailed seasonal mobility between wet and dry seasons as well as unclear forest user rights. Concurrently, the size of land units is decreasing as the population increases, causing tension over land tenure. While women comprise 40% of the agricultural labour force and head ~25% of all farming households, their access to land and other productive assets remain much lower than men. Women's ownership of land is particularly low compared with men in pastoralist areas. In rural Ethiopia, women tend to farm plots that are on average 0.48 ha smaller than those managed by men. Landlessness is also a severe problem facing the youth in Ethiopia. Rates of landlessness vary across different age ranges, with 14% of youth-headed households (15-34 years) living in rural areas lacking access to land, compared with 7% of mature-headed households. The share of landlessness among the youngest householder (14-24 years) is even higher, at 21%, followed by 13% for 'experienced youth' (25-34).
- **Law enforcement:** The issues related to land tenure and institutional capacity are closely related to insufficient compliance with and implementation of existing policies, laws and regulations. While watershed management committees exist in consulted communities which have been successful at reducing the rate of deforestation in these areas, technical and institutional capacity to adequately implement policies, laws and regulations remain limited.

## Root causes

The root causes of the problem are related primarily to demographic change and economic conditions. The socio-economic landscape of Ethiopia is undergoing a transforming that has three dimensions, namely demographic, spatial, and economic. The main factors related to this transformation relevant to the problem are summarized below.

- **Population pressure and urbanization:** Ethiopia is experiencing rapid population growth and urban expansion. Urban population is growing at 4.8% per year compared with approximately 2% rural population growth in 2021 and 2022. From 1984 to 2007, urban population grew by 150%. The rural population only grew by 66% during the same period. The growing population is causing increasing demand for natural resources, including land and water. As the population grows, the amount of arable land per household decreases, and to maintain adequate food supply, agriculture is expanding into marginal and forested areas. The growing population is therefore causing a shift in reliance on agriculture to a direct reliance on forest resources, thereby directly causing deforestation. Concurrently, urban areas are placing pressure on forests for energy in the form of woodfuel and other inputs from rural areas. Urban population growth is also coinciding with the physical expansion of built-up areas, sometime into forested areas, with population growth mostly occurring at a lower rate than the physical urban expansion. Consequently, Ethiopian cities are becoming less dense, which is contributing to rising transportation and service delivery costs, as well as overall environmental deterioration in their surrounding areas due to increased demand for resources (particularly for energy) and leading to tensions and conflict between urban and rural communities. The growing urban population is also placing pressure on water resources, as is evident from the fact that annual freshwater withdrawal increased from 7.4 (2010) to 8.6 in 2020. This is occurring while the delivery of this critical ecosystem service by forests is decreasing.
- **Population distribution:** Ethiopia has a very young population, with more than 40% being under the age of 14. As the young population moves into the labour force, they are confronted with limited economic opportunities as traditional agriculture continues

to become less viable as a livelihood option and the size of land holdings per individual declines . As a result, the growing population is increasingly dependent on forest resources for their livelihoods . In addition, as the young population moves into urban areas, they are increasing demand for energy from biomass, thereby causing an increase in the overharvesting of woodfuel and consequently land degradation. Youth migration also affects women and children in rural areas directly. As men and adolescent youth move to urban areas in search of work, a higher proportion of rural girls are forced to drop out of school to support the increased burden of household chores such as taking care of younger siblings and generating an income to support their families.

- **Multi-dimensional poverty in rural areas:** The GoE has implemented numerous strategies to reduce poverty and stimulate economic development across the country, with poverty rates falling from 30% in 2011 to 24% in 2016 . However, poverty remains a challenge and the rate of poverty decline is lower in rural areas than in urban areas. Rural areas are still confronted with limited development opportunities and are increasingly lagging behind urban areas. As noted above, approximately 80% of Ethiopia's population are involved in agriculture. Out of this group, the poorest 40% tend to live in rural areas . Women and children are affected particularly severely by poverty across Ethiopia. There are numerous reasons for this phenomenon, including the fact that over half of women engaged in the agriculture sector receive no payment for their labour while they concurrently have to spend 19.3% of their time on unpaid domestic chores and care work, compared with 6.6% for men , . Overall, women are particularly vulnerable to poverty because they are generally less literate, have poorer health than men and have fewer basic rights than men . As a result, in some areas of the country, women are up to 29% less likely to participate in the labour force, thereby trapping them in the cycle of poverty . Decreasing food security and nutrition in rural areas is compounding this problem by reducing overall quality of living, thereby indirectly impacting other development outcomes such as education and causing an increase in multi-dimensional poverty.
- **Access to water and basic services:** Rural areas are more affected by limited access to basic services and overall lower levels of human capital . These areas have lower access to electricity (9% in contrast to 93% in urban areas) and lower access to water: 6% of rural households have access to water on their premises, in contrast to 77% of urban households . Approximately 50% of rural households have to spend 30 minutes or more (round trip) to collect water . These factors, in combination with the impacts to agriculture, are pushing young people towards urban areas. Consultations with local communities have confirmed that access to water is a significant constraint to their development, and that they are particularly vulnerable to water shortages during the lean season. In these communities, there is no improved water supply or diverse water transportation system. Most of the water used for domestic consumption in rural villages is delivered by women or by pack animals such as donkeys and camels. This highlights the disproportionate impact that water scarcity has on women in these areas. Community members also reported that during dry periods, they have been compelled to sell their livestock to buy water infrastructure for irrigating their crops (e.g. HDP pipes). There remains a need to reinforce existing infrastructure, and to expand irrigation systems. Consulted communities have established irrigation associations and constructed water retention infrastructure that has made agroforestry possible, but there is a need to expand and strengthen these interventions where they do exist, and to invest in this infrastructure in communities where they have not been implemented yet.
- **Inflation and food price increases:** The economy of Ethiopia is not only influenced by the effects of its growing population, but is also highly vulnerable to global markets. While efforts by the GoE to alleviate these impacts and to stimulate economic growth are commendable and have in many cases showed great success, there its ability to intervene in the market through subsidies and other instruments remains limited . Overall, Ethiopia's exposure to international markets and its growing population are placing pressure on its economy. Rural communities are faced with rising food staple prices, particularly items sourced from surrounding urban areas such as cooking oil, salt and sugar, as well as with increasing prices of farming inputs. To maintain sufficient income to purchase these items while also ensuring they have adequate supplies of food throughout the year, they are increasingly compelled to expand their agricultural operations into marginal and forested areas. To improve income generation throughout the year, communities consulted during the project development reported the need for improved market linkages. Specifically, access roads to rural communities are particularly poor, and exposed to erosion during periods of high rainfall. The impact of inadequate market access on income generation potential is exacerbated by the presence of illegal brokers in the value chain. These individuals exploit vulnerable communities by offering extremely low prices for their produce. There is a need to strengthen community cooperatives to increase their bargaining power and maximise income potential from trade with urban areas.

## Climate change in Ethiopia (climate-related drivers of the problem)

**The drivers of vulnerability described above are being directly and indirectly accelerated by the impacts of climate change, and threatening to undo the hard-won gains made by the GoE in recent years. The section below provides a brief overview of observed and projected climate change in Ethiopia, as well as the impacts on vulnerable rural communities across the country.**

## Observed climatic changes

**Temperature:** Historical records indicate that average temperatures in Ethiopia have increased by an average of 0.5°C–1°C since 1950. The mean temperature increased from 22.80°C (1971–2000) to 23.37°C (1991–2020) (see Figure 4 below). In addition to the rise in mean temperature, between 1960 and 2003, the average maximum annual temperature (Figure 5) increased significantly, and the average number of hot nights increased by 37.5%. Higher rates of warming have been observed in the central regions and highland areas with the most noticeable temperature increases from July through September.

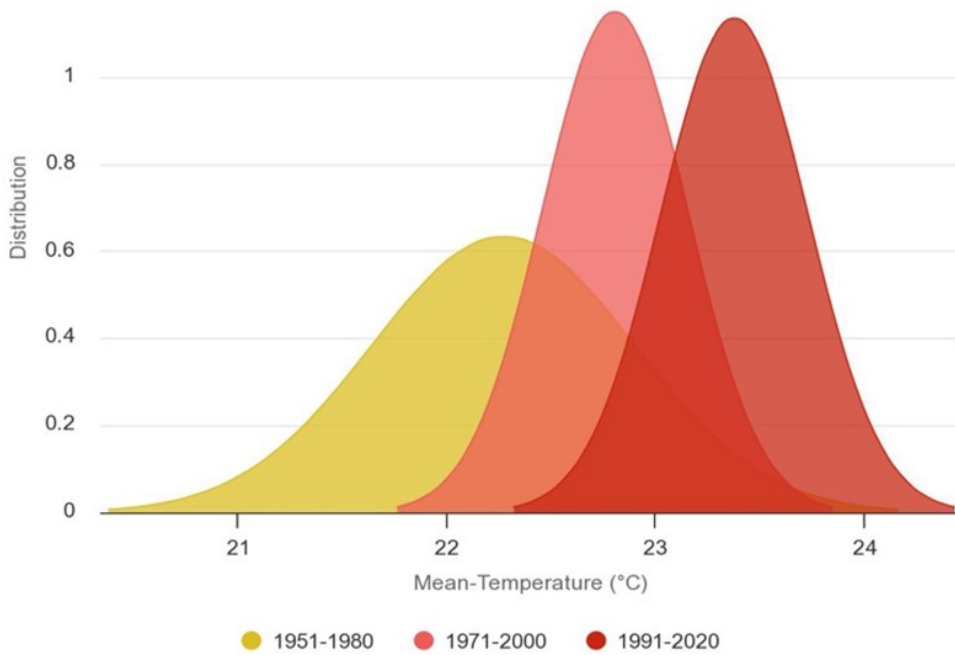


Figure 4. Observed change in mean temperature from 1951–2020, Ethiopia.

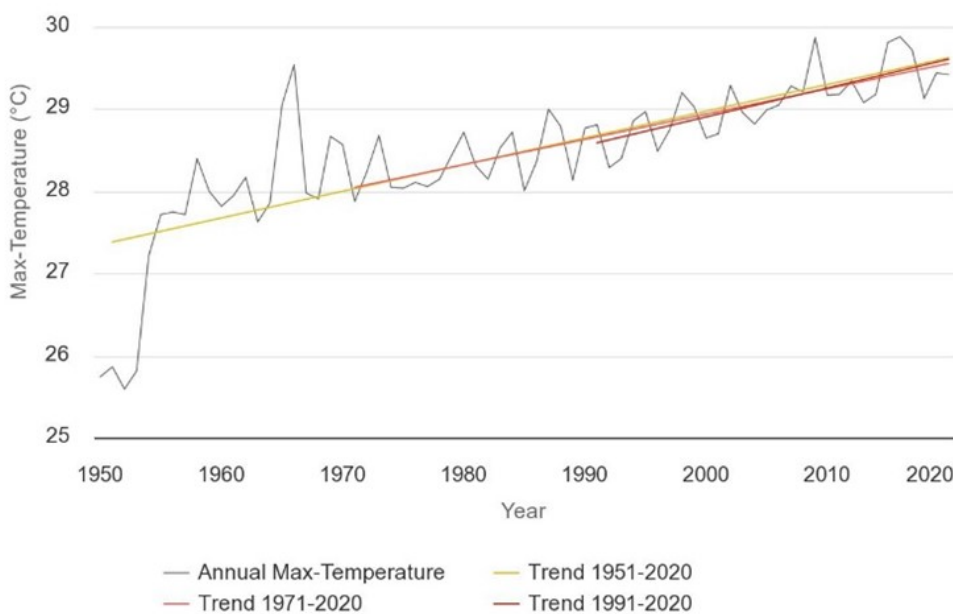


Figure 5. Observed trend of maximum temperature per decade from 1950–2020, Ethiopia.



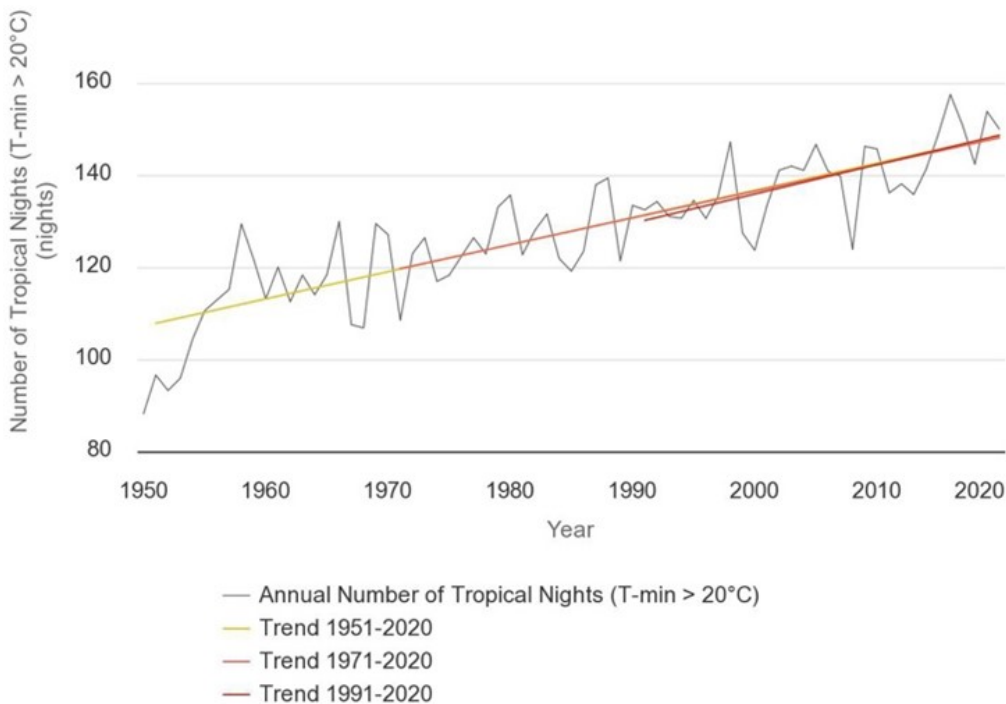


Figure 6. Observed trend of the number of tropical nights (T-min>20°C) per decade from 1950 to 2020.

**Precipitation:** An overall decline in precipitation was observed in recent decades, with significant year-to-year variability. From the 1980s, mean annual rainfall decreased from approximately 1,200 mm to 1,000 mm in 2020 (Figure 7) . While precipitation trends across Ethiopia are highly variable, some areas of the country experienced a severe reduction in rainfall. For example, the south-central region of the country has experienced a 20% decrease in rainfall since 1960 . While the general decrease in mean precipitation that has been observed has affected communities in many areas of the country, the most severe climatic change in terms of precipitation that has been observed is an increase in the variability of rainfall. This includes a spatial and temporal shift in rainfall characterized by a decrease in the number of consecutive wet days (Figure 8), an increase in the number of consecutive dry days and an overall shift in rainfall distribution, as shown in Figure 9. Overall, rainfall is becoming more unpredictable, and characterized by dry periods interspersed with rainfall events of increasing intensity.

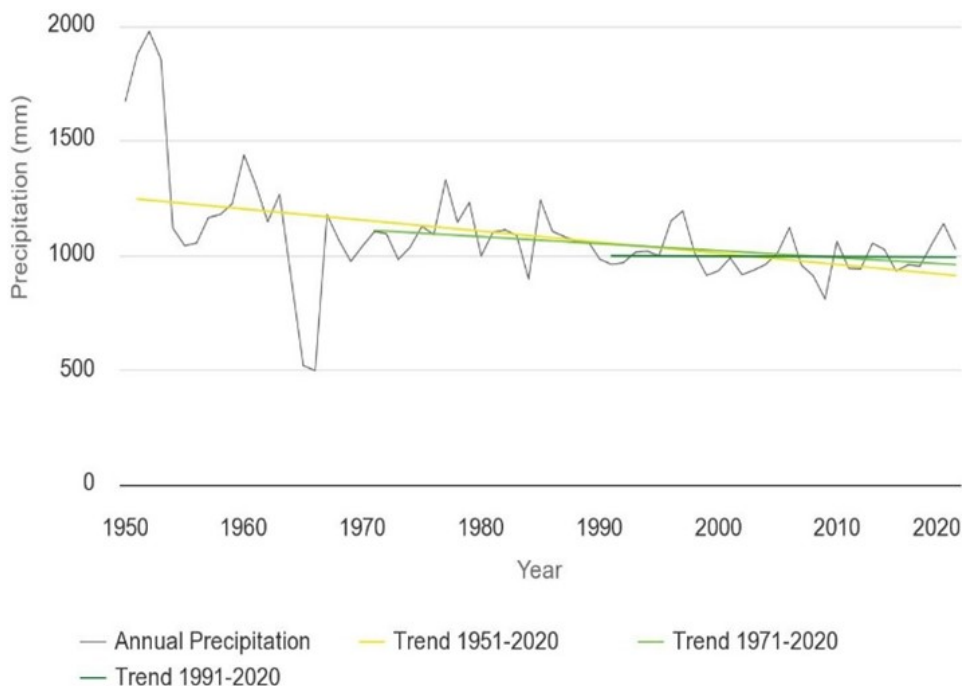


Figure 7. Observed annual precipitation trend per decade from 1951–2020, in Ethiopia.

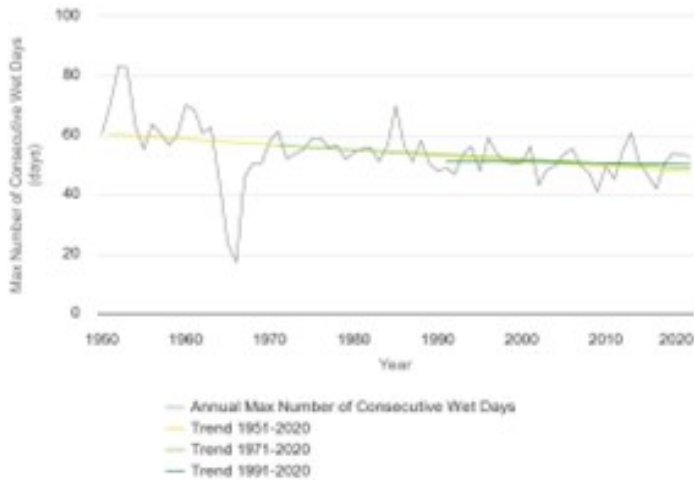


Figure 8. Observed annual trend of the maximum number of consecutive wet days per decade from 1950–2020.

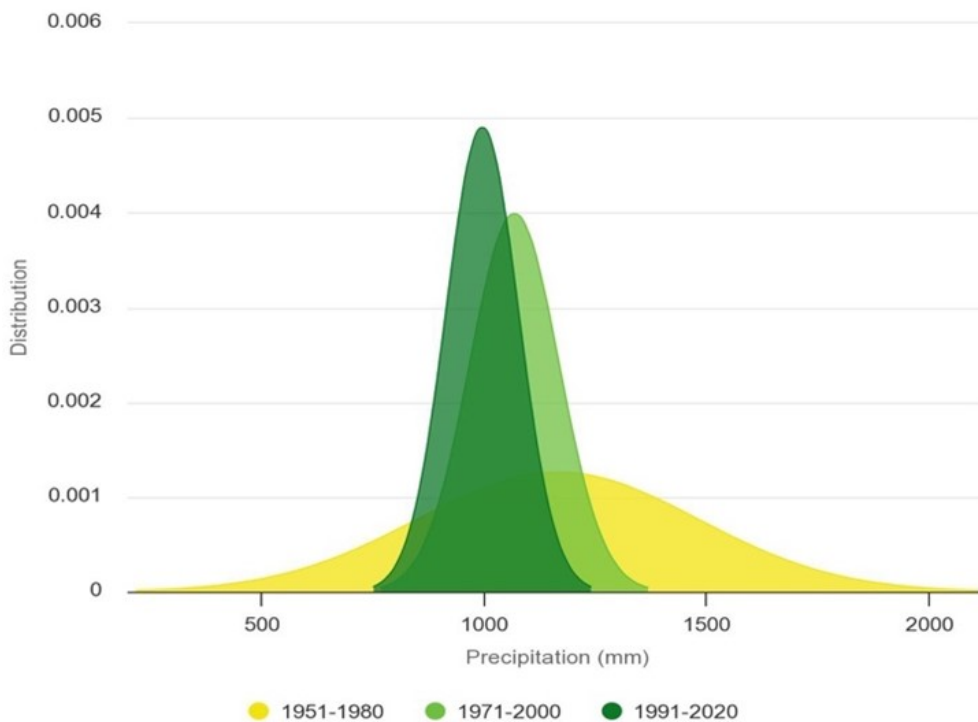


Figure 9. Observed change in mean precipitation distribution from 1951–2020, Ethiopia.

### Projected climatic changes

**Temperature:** In the future, further increases in temperatures are expected for Ethiopia, in line with projections for East Africa as a whole. In Ethiopia, mean annual temperature will significantly increase under all emissions scenarios by 2040. Under RCP 4.5, Ethiopia will experience an increase of between 1-1.5°C by 2040 and 3°C by the end of the century, under a high-emission (RCP8.5) relative to the 1986–2005 period (Figure 10). The frequency of hot days and nights will substantially increase in projected future climates. Annual projections indicate that hot days will occur on 19–40% of days by the 2060s, and 26–69% of days by the 2090s. Across the seasonal cycle, the temperature will spike from June to January. The most rapid increases are expected in the July,

August, and September seasons. Hot nights are projected to increase more quickly than hot days. CORDEX Ensemble Africa Model projects that regions of Amhara and Tigray will be warmer compared with the rest of the country by 2040 relative to 1981–2010.

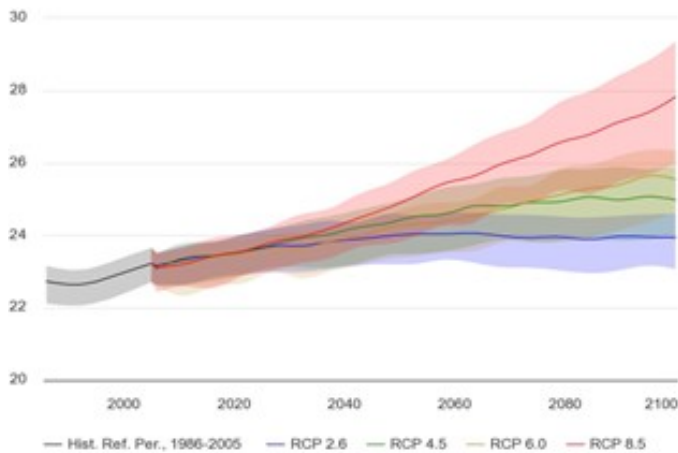


Figure 10. Projected mean temperature by 2100 relative to 1986–2005 using Multi-Model Ensemble, Ethiopia.

**Precipitation:** A high degree of inter-annual variability and high degrees of uncertainty remain in future projections of Ethiopia’s precipitation trends. Although rainfall is projected to decline under low emissions scenarios; increases are projected in higher emissions scenarios (SSP5-8.5) by 2100 (Figure 11). Projections under CORDEX Ensemble Model estimate a mean annual precipitation decrease of 2.2% by 2040 and 7% by 2100. A 20% decline in spring and summer rainfall in southern in central regions and a general decline in the northern areas is expected; but an increase is expected for southwest and southeast areas. While projections for overall levels of precipitation are uncertain and suggest that a drastic decline in average rainfall is not expected, under future climate change it is projected that the trend in rainfall variability will intensify. Specifically, periods between rainfall will become longer while rainfall events will become more intense.

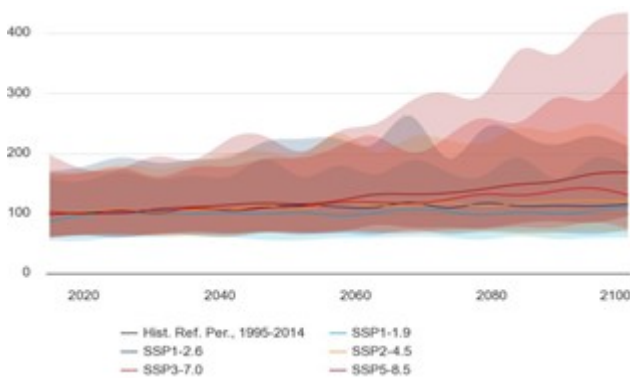


Figure 11. Projected precipitation percent change by 2100, under all emissions scenarios (Multi-Model Ensemble) relative to 1995–2014.

## Climate change-related natural hazards

Ethiopia’s climate is characterized by a high degree of exposure to hydrometeorological hazards and extreme events. This high exposure compounds the vulnerability of the country’s population, particularly in areas where poverty remains severe and food security low. A list of hazards that have occurred in the country in the past century is shown in Figure 12 below.

Natural Hazard 1900–2020	Subtype	Events Count	Total Deaths	Total Affected	Total Damage ('000 USD)
<b>Drought</b>	Drought	16	402,367	77,141,879	1,492,600
<b>Earthquake</b>	Ground Movement	2	24	585	320
<b>Epidemic</b>	Bacterial Disease	16	10,999	134,551	0
	Viral Disease	6	156	4,819	0
	Parasitic Disease	1	157	25,000	0
<b>Flood</b>	Flash Flood	9	863	1,129,358	9,400
	Riverine Flood	32	1,105	1,809,978	8,900
<b>Insect Infestation</b>	Locust	4	0	0	0
<b>Landslide</b>	Landslide	5	93	215	36
<b>Mass Movement (dry)</b>	Landslide	1	13	0	0
<b>Volcanic Activity</b>	Ash Fall	3	69	11,000	0
<b>Wildfire</b>	Forest Fire	1	0	5	0

Figure 12. Natural disasters in Ethiopia between 1900-2020.

Ethiopia is exposed to droughts and floods, both of which affect agriculture and forests upon which the country's population directly and indirectly depend. Since the 1970s, the frequency and intensity of droughts and floods have increased in Ethiopia. Across the country, changes in the intensity of rainfall have occurred, with increasingly intense rainfall events observed in some areas, along with higher overall rainfall in some areas, contributing to intensified flood events. Concurrently, the increase in the number of dry days has been observed in many areas, which is increasing aridity and drought intensity, and alongside rising temperatures, leading to higher demand for water, water stress and scarcity, biodiversity loss and reduced crop yields. These events are exacerbating the effects of deforestation and land degradation, decreasing agricultural productivity, and reducing the adaptive capacity of vulnerable rural communities (detail on climate impacts is presented in the next section). Under future climate conditions a further increase in the frequency and intensity of floods and droughts is expected, with adverse impacts on the most vulnerable communities living in rural areas of the country.

### Impacts of climate change on Ethiopia's population

Ethiopia is one of the most vulnerable countries to climate variability and climate change due to its high dependence on rain-fed agriculture and forest resources, and relatively low adaptive capacity to deal with projected changes and resulting impacts. Climate change is affecting almost all sectors in the country including the agriculture, water resources, health, biodiversity and forest and energy, and is exacerbating food security and poverty, and eroding adaptive capacity. Over the past few decades, especially in the drylands, millions of people have become vulnerable to drought and flood risk. In recent years, droughts have already reduced Ethiopia's GDP by 1-4%, with soil erosion contributing to an additional 1% loss of GDP. It is estimated that by 2045, the impacts of climate change could cause a reduction in the country's GDP by up to 10%, primarily through reductions in agricultural productivity caused by droughts.

The social and ecological vulnerability of rural communities to climate change and variability has been exacerbated by the baseline problems of deforestation and land degradation, which are adversely affecting the livelihoods and well-being of millions of people, particularly women and the youth. The combination of these problems and the impacts of climate change are affecting women in Ethiopia in numerous ways. For example, droughts increase the domestic labour burden of women and girls (for example by increasing the time they spend on collecting water and woodfuel), thereby often causing them to drop out of school. During times of drought, women often have to engage in increased household responsibilities while simultaneously having to compensate for the loss of agricultural income. Under extreme situations, droughts can cause households to resort to negative survival strategies such as child trafficking, child labour, early marriage and survival sex.

Table 1. Climate impacts on key sectors.

Sector	Vulnerability	Observed impacts	Projected impacts
Agriculture and agroforestry	<p>In the highland areas, the main climate-related vulnerabilities relate to erratic rainfall, drought, hailstorms, frost, strong winds, pests, and diseases affecting crop and livestock production. More than 12 million small-scale farmers are vulnerable to climate change — 95% of crops depend on rainfall for farming and livelihoods. Only less than 5% of the water has been so far developed for irrigation purposes. Other factors increasing vulnerability to climate change include outdated or inefficient farming practices (e.g., low availability and poor quality of seeds and fertilizers), low income and lack of financial support, insufficient policies and guidelines, and technology to climate change adaptation that affect production and productivity.</p>	<p>The diverse agro-ecological zones in the country demonstrate different levels of sensitivity to climate change impacts. While the lowlands are generally sensitive to increased temperatures and prolonged drought, the highlands are impacted by droughts, as well as intense and irregular rainfall. The decline in average precipitation and an increase in temperature are both damaging to Ethiopian agriculture . The amount and duration of rainfall have been declining, and the dry season is becoming longer, which has led to a shortage of water and pasture, the spread of human and livestock diseases. A</p>	<p>It is estimated that Ethiopia will lose more than 6% of each year’s agricultural output if the current decline in average annual rainfall levels for primary agricultural zones continues to mid-century . Rising temperatures and shifting rainfall patterns may increase soil erosion and infertility and increase growing difficulties for many crops as well as shorten growing seasons. By 2050, climate change may increase the rate of soil erosion by up to 40–70%. By 2050, variability of rainfall may cause an average reduction in crop yields for teff, wheat, and maize of 2.4%, 6.2% and 10.8%, respectively, at the national level. If no adaptation measures are taken, the effects of climate change and the resulting unfavourable distribution of rainfall may reduce Ethiopia’s GDP by as much as 2.5% per year by 2050 and seriously affect the livelihoods of smallholder farmers. The reductions in yield due to either the lack of available water or the overabundance of water will trigger direct and indirect economic impacts such as reductions in income, employment, savings, and investments. Reductions in water availability for agriculture will lead to further declining agricultural productivity, natural resource degradation, and increases in crop pests. Increased agricultural losses will place the country in a situation of critical food insecurity.</p>

notable increase in the spread of pests has also been observed, particularly desert locusts. Stakeholders have noted that in the last 20-30 years the frequency of locust events has increased. Moreover, new types of locusts have been observed in Ethiopia, as warmer temperatures and more moisture during certain times of the year in neighbouring countries such as Somalia and Yemen have caused them to proliferate, while the longer drought periods in those countries cause them to move to Ethiopia in search of food. As noted above, the impacts of climate change on agriculture and agroforestry are particularly severe for women in rural Ethiopia. This is because they already experience lower levels of agricultural

productivity than men, for the reasons discussed in ‘underlying causes’ and ‘root causes’ (i.e. issues of land tenure, holding size, access to farming inputs and extension services, etc). Climate change is compounding the issues of low productivity by further increasing the burden on women. For example, simultaneous to the impacts of the socio-economic shift occurring in Ethiopia that is leading young people to move to urban areas and increasing domestic labour burden on women, the impact of droughts on farm productivity further directly impacts women (especially those in women-headed households) by eroding their capacity to provide for their families and to

generate an  
income.

Forest resources have faced an immensely high rate of deforestation, forest degradation, soil degradation, and loss as well as over-grazing. The high rate of population growth coupled with low agricultural productivity, low living standards in rural communities, and lack of alternatives to a reliance on forests are the underlying factors responsible for the vulnerability of the forest areas of Ethiopia. The lack of appropriate land-use and forest policies and the absence of corresponding laws also aggravated the situation.

Forest  
resources and  
biodiversity

Additionally, climate change has affected agroforestry systems. Parkland forest is one of the important agroforestry systems facing climate change challenges. Increased temperature has escalated vapor pressure deficits between leaves and the atmosphere, as well as the water loss rate from other tree layers. Consequently, tree densities and species in rural landscapes and parklands have significantly declined in past decades, especially since the droughts of the 1970s. The associated benefits such as food security, microclimate amelioration, economic benefits, environmental protection, household energy, household utensils, cultural values, traditional medicines, and fodder also dwindle.

Climate change is also increasing pressure on water resources for pastoral communities and smallholders, causing an immediate increase in their reliance on forests. When water becomes scarce, communities push their livestock being into forests for water and fodder, and communities increasing pressure on these ecosystems for fuelwood and charcoal (both for subsistence and markets). In times of drought, communities themselves also increasingly migrate into forest areas to access water points. The increased presence of humans in forest not only places direct pressure on water sources that feed into the

Ethiopia is expected to experience increased temperature, flood, landslide, frost, droughts and extreme rainfall events. The projected impacts of these climatic changes on forest resources remain unclear, but it is expected that species shifts will occur, for both wildlife and plants. Climate change will likely lead to the decline of lower mountain wet forests; increased biodiversity loss; increased loss of indigenous species and decline of natural regeneration and expansion of invasive species. Many species may be unable to adapt to rapidly changing and often unfavourable conditions, placing them at risk of extinction. Commercial forest species (such as those used to produce frankincense) will also be affected. There is also a high probability of increased prevalence of forest fires, an increase in diseases and pests.

Under future climate conditions, it is also expected that the cycle of pressure on dwindling forest resources will intensify. As rainfall in lowland areas becomes more unpredictable, communities will be compelled to increase their reliance on forests for water, energy and food. This will further exacerbate the loss of ecosystem services that are required by communities to maintain productive livelihoods in non-forested agricultural land.



region's major rivers, but as forests become drier due to climate change, more people in forests also increases the likelihood of fires.

In rural areas of Ethiopia, women have a deep relationship with forests. Women are often responsible for collecting and carrying bundles of firewood and walk as far as 15km per day to do so. As the health of forests are directly impacted by land degradation, which is being accelerated by climate change, protection and forest conservation are needed to build sustainable climate-resilient rural communities. However, the role of women in rebuilding and protecting ecosystems threatened by climate change remains insufficient due to their limited decision-making power in communities. Consequently, their reliance on forests is increasing while they are simultaneously not sufficiently engaged in protecting and conserving these areas.

NTFPs value chains  
Forests and NTFPs are naturally endowed to combat climate change by protecting people and livelihoods as well as creating a base for sustainable economic and social development. However, several factors enhance their vulnerability to climate change. Those factors include deforestation and habitat loss driven by agricultural expansion, urbanization, and infrastructure development; fragmentation and isolation that lead to disruption of ecological processes and genetic diversity; and over-

Rising temperatures and temperature variability over the last few decades have either shifted the latitudinal and altitudinal distribution range of tree species or led to the extinction of species for which there were not sufficient habitats at higher altitudes to facilitate their migration . Rising temperatures have led to changes in the distribution and composition of non-commercial forests. Some species struggle to adapt to higher temperatures, leading to shifts in their abundance and distribution. Changes in rainfall

NTFPs are expected to experience changes in species composition. Certain non-timber forest species may become less suitable for growth and decline in abundance, while others may thrive. This could affect the availability and diversity of NTFPs in the value chains. It is expected that Ethiopia will experience extreme heat and water scarcity which will likely reduce productivity and quality. This could result in decreased yields, lower nutritional value, and reduced market value of these products. Disrupted market dynamics will likely constrain

exploitation, and unsustainable harvesting often for commercial purposes, traditional practices, or subsistence use.

patterns, including increased variability and changes in the timing and amount of rainfall, have affected the growth and regeneration of non-timber forest plants. Droughts have become more frequent and severe in Ethiopia, and have affected non-timber forest plants, especially those with shallow root systems, particularly vulnerable to water stress during drought periods, thereby leading to reduced growth and increased mortality rates. The scorching heat has led to fierce and extensive bushfires impacting honeybee forests and honey gatherers. Honeybees are dying because they cannot find enough to eat/drink, their hives are damaged, and prone to pests and diseases.

prices, supply chains, and trade relationships, potentially impacting the livelihoods of those involved in the NTFP sector. Climate change impacts on the value chain could have direct consequences on the income and well-being of these communities, potentially leading to increased vulnerability and poverty. Women are likely to be mostly affected as increased temperatures will reduce NTFPs and in turn, delimit the time women spent collecting NTFPs.

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## Future narratives and business-as-usual scenario

### Narrative 1: Increasing population pressures and demographic change

Population growth and urbanization: Although the population growth rate in Ethiopia is expected to decline gradually into the future, population growth and urbanization will have profound consequences on the socio-economic development of the country. By 2050, the total population of the country is projected to increase to an estimated 180 million from the current level of 120 million people . By some estimates, the population will grow to nearly 215 million by 2050 . The trend in total population growth will occur in conjunction with a rapidly growing urban population at a rate of about 4.5% per year, with the urban population rising to 24-29% of the total population in 2025, to 30-40% by 2035, and doubling by 2050. Concurrently, the rural population is projected to decline from 77% to 61% by 2050 . This transformation will primarily be driven by natural population growth, the growth of smaller urban conglomerations and reclassification of smaller settlements. As the impacts of climate change continue to decrease agricultural production and productivity, it is likely that this trend in rural-urban migration and urbanization will continue, with adverse consequences for the natural resource base upon which the population depends for their livelihoods.

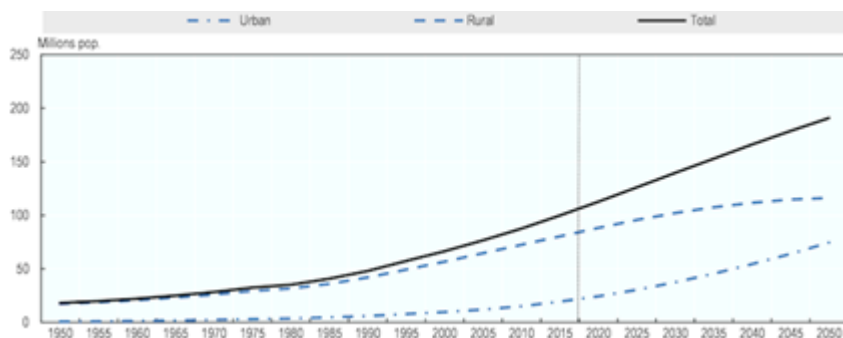


Figure 13. Rural and urban populations in Ethiopia, 1950-2050.

Demographic change: Ethiopia's young population presents an economic opportunity for the country, as the young population moves into the labour force and the dependency ratio continues to decline. However, climate change will continue to make traditional agricultural livelihoods less productive, and the rising number of young people looking for limited employment opportunities will put increasing pressure on the dwindling forest resources.

Future outlook: Climate change threatens to undo the gains made by the GoE to adequately respond to the socio-economic transformation occurring in the country and will exacerbate the negative cycle of unsustainable use of resources . As the socio-economic transformation progresses and the impacts of climate change continue to decrease agricultural productivity, the vulnerability of rural agrarian communities will increase. It is likely that the trend in rural-urban migration and urbanization will continue, with adverse consequences for the natural resource base upon which the population depends for their livelihoods. To counter the adverse impacts of climate change and ensure that the potential benefits of the demographic transformation are realized, investment is needed for existing interventions to be upscaled and enhanced. If this is not done, climate change threatens to accelerate the adverse impacts of population growth and urbanization.

## Narrative 2: Deepening poverty and inequality

**Poverty and inequality:** Despite the progress made in alleviation of monetary poverty across Ethiopia in recent decades, multi-dimensional poverty remains high across the country. Approximately 84% of the country's population remains multi-dimensionally poor (2016) while, in contrast, monetary poverty stood at 24% during the same year. While the GoE has implemented numerous strategies to reduce poverty and stimulate economic development across rural areas, these areas are still confronted with limited development opportunities and are increasingly lagging behind urban areas. Women and children are particularly vulnerable, since they do not have access to the same resources as men. Women in rural areas, particularly women-headed households, have much lower rates of agricultural productivity than men, for the reasons described in 'underlying causes' and 'root causes' above. As a result, they are even more vulnerable to the impacts of climate change, and particularly the vicious cycle of land degradation that is being accelerated by droughts and floods. Under future climate conditions, the impacts of climate change will continue to negatively affect agricultural productivity in rural areas, thereby intensifying multi-dimensional poverty — particularly among women and the youth. Women will farm increasingly unproductive land, thereby experiencing deepening poverty while young people (particularly the large number who lack access to land) will be compelled to search for opportunities in urban areas. This will accelerate the trend in rural-urban migration, with subsequent intensification of poverty and pressure on resources in these areas.

**Access to basic services:** In the absence of intervention, rural areas will continue to be more affected by limited access to basic services and overall lower levels of human capital. While great progress has been made in improving access of rural households to water, climate change is threatening to undo these improvements. As the country's population grows and places increasing pressure on water resources, climate change will intensify water scarcity. In rural areas, the limited availability of water is already a factor that is influencing community livelihoods and places a particularly large burden on women who have to carry water for domestic use over long distances.

**Future outlook:** To reduce the probability that the impacts of climate change will cause a deepening of poverty in these rural areas, further reduce the resilience of communities and result in a deterioration in their quality of life, interventions are needed to strengthen the resilience of rural communities, to enhance their food and water security, and to improve their quality of life. Without these interventions, it is likely that the positive gains made in poverty alleviation by the GoE will be reversed by the impacts of climate change on communities. This will threaten the long-term development prospects of these communities, as well as the economic growth of Ethiopia as a whole.

## Narrative 3: Deteriorating economic conditions

**Impacts of demographic transformation and climate change to Ethiopia's economy:** Ethiopia has a fast-growing economy and has significant potential for further development. However, despite positive gains made by the GoE, the economic outlook of the country is threatened by potentially deteriorating socio-economic conditions caused by the impacts of climate change. Changing economic conditions are projected to occur alongside direct impacts to food security from agricultural productivity loss, and the consequent impacts on food security, which may reduce the country's GDP by up to 10% by 2045.

**Future outlook:** In the future, rising global food prices will likely further impact the availability of staple foods in Ethiopia, which will be exacerbated by the declining quality of life in rural areas, compelling young people to migrate to urban areas, thus exacerbating the cycle of declining productivity of agriculture and limited economic opportunities. To ensure rural community development under future climate conditions,

investments are needed to link GLI interventions and thereby enhance the delivery of ecosystem services at landscape level. This will improve food security in rural communities, increase income generation, make them more self-sufficient and ultimately reduce their exposure to external economic shocks.

## **Rationale for selecting the proposed project**

Climate change is exacerbating the baseline drivers of declining food security, intensifying rural poverty, increasing youth migration and displacement of rural communities. The socio-economic landscape of Ethiopia is undergoing a transformation that has three dimensions, namely demographic, spatial, and economic. This transformation is accelerating deforestation and land degradation that have already reduced the delivery of critical ecosystem services required for maintaining agricultural production and productivity. Collectively, these changes are affecting the climate-vulnerability of rural communities who are dependent on natural resources for their livelihoods. In turn, the impacts of climate change are placing increasing pressure on forest ecosystems as well as on the communities themselves, thereby leading to an adverse cycle whereby pressure on the dwindling natural resource base grows as climate impacts become increasingly intense. In the absence of intervention, climate change will continue to reduce the viability of traditional agricultural lifestyles, thereby accelerating the cycle of deforestation and land degradation which will ultimately lead to a further reduction in the delivery of critical ecosystem services and a decline in the climate-resilience of rural communities. The proposed project will address the aforementioned issues by building on the successes of the Green Legacy Initiative (GLI), as well as linking the multitude of successful projects and initiatives that have been implemented across the landscape. The GLI is introduced below, alongside a list of ongoing initiatives.

### **Alignment with country priorities**

The Government of Ethiopia (GoE) has been planning and implementing numerous interventions to combat environmental degradation and the associated socio-economic challenges, demonstrating that there is strong political recognition of environmental challenges and the increasing socio-economic vulnerability of rural communities in recent decades. The proposed LDCF project will build directly on one key initiative of the GoE, namely the Green Legacy Initiative (GLI). The LDCF project will form the basis of Phase 2 of the GLI, scaling up best practices from Phase 1, with a strong focus on climate change adaptation. Specifically, LDCF resources will be used to enable the upscaling of GLI financing, but with a strong emphasis on ensuring that the interventions implemented under the initiative are climate resilient and are selected and designed to maximize their contribution to strengthening the resilience of communities to the impacts of climate change. This will include a focus on climate-proofing existing GLI interventions (for example by investing strategically in areas where climate change still impacts the viability of interventions), as well as by promoting climate resilience and adaptation benefits to communities in upscaling and expanding GLI under Phase 2. The section below provides an overview of the GLI, including the lessons learned and best practices from Phase 1, and the focus and targets of Phase 2.

**Green Legacy Initiative (GLI): Addressing socio-economic and environmental challenges simultaneously through nature-based solutions**

### **Overview of GLI Phase 1**

In 2019, the Prime Minister of Ethiopia HE Dr Abiy Ahmed launched the Green Legacy Initiative (GLI), a mechanism to balance economic activities and natural capital management (as shown in Figure 14 below). The GLI's overall objective was in its first phase to plant 20 billion seedlings in four years, thereby restoring

millions of hectares of degraded landscapes and critical ecosystem services across Ethiopia. The GLI was initiated to enhance conservation of existing biodiversity-rich forests and improve access to quality and quantity water and energy supply.

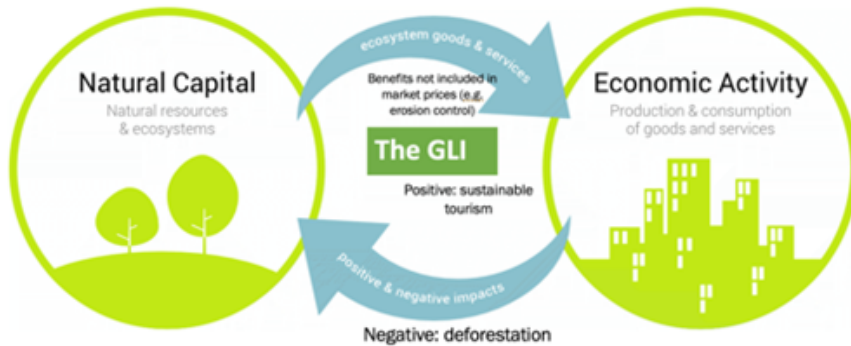


Figure 14. The GLI’s role in improving the balance between economic activities and natural capital management.

The GLI is a flagship initiative aimed at responding to national, regional and global challenges. At policy level, the GLI is seen as an instrument to catalyse green economic growth, sustainable forest management, natural resource management, and vertical and horizontal interaction between institutions. The objectives of the GLI include:

- Promoting conservation of carbon and biodiversity rich forests;
- Enhancing forest cover, wood and fodder security;
- Restoring degraded landscapes and ecosystems;
- Increasing fruit tree cover-food/nutrition security;
- Decarbonizing Ethiopia’s economic pathways;
- Minimizing youth migration and conflicts;
- Making greenery a culture;
- Promoting tree diplomacy in Africa and beyond; and
- Addressing national, regional and global environmental and socio-economic challenges simultaneously.

By enhancing ecosystem services and by restoring the capacity of land productivity through e.g. improving soil fertility and minimizing soil erosion, soil acidification and salinization, the initiative has shown its actual and potential benefits in improving access to food and nutrition, clean water, energy, and creating market linkages and income enhancement, and thereby enhancing social and environmental resilience against changing climate. Moreover, the initiative is expected to revitalize citizens’ co-existence with nature — an essential step towards climate change adaptation. In addition to regreening degraded landscapes and restoring ecosystem services, GLI has increased societal awareness on the need to sustainably manage the environment and on the role of trees and forests. The GLI is well supported by urban and rural communities in Ethiopia and has also provided new opportunities for political leaders to engage with their communities. The cross sectoral

coordination of the initiative has brought positive changes in building horizontal cooperation among government line ministries.

Figure 15. The GLI is supported and driven by communities across Ethiopia.

**GLI Phase 2: Scaling up best practices and optimizing benefits through standardization of the regreening interventions**

In June 2022, after four years of implementation, the first phase of the GLI ended, having successfully planted 25 million seedlings (with a survival rate of 70%). The results of the GLI are considered as important steps to achieving the ambitious targets set in Ethiopia's Nationally Determined Contribution (NDC), the SDGs, the Bonn Challenge, the New York Declaration on Forests, the AFR100, the Great Green Wall Initiative and others. Considering the registered achievements and lessons observed in the first round of GLI and considering the remaining unaddressed environmental and socio-economic challenges, the Prime Minister of Ethiopia has launched the second round of GLI, referred to as the Dire Dawa Chapter. The second round will build on the achievements of the first round of GLI by way of focusing on scaling up best practices, improving quality of planning, implementation and reporting, planting high value agro-forestry seedlings such as fruit trees, creating industrial forests, promoting innovative forest-based value chains development, and creating more green jobs for youths and women.

The GLI is an initiative that currently has a very high level of political support, as well as direct involvement of local communities. Stakeholders have described the initiative as politically strong, environmentally sound and economically robust. During Phase 2, the GLI should be enhanced by focusing strongly on enhancing coordination and cooperation. Stakeholders also suggested the need for enhanced synergy both at the level of coordination, as well as by linking the extensive on-the-ground interventions that have already been implemented. While the focus of the GLI is at landscape level, there remains a need to link current initiatives. The second phase should also look beyond forests and consider agricultural landscapes in general for maximum impact.

**Phase 2 focus areas and targets**

During Phase 2, the GLI will focus on enhancing the livelihood of smallholder farmers by integrating more species of edible fruits and fodder. This also includes other agroforestry species that will enhance ecosystem services protection and restoration of degraded landscapes and critical ecosystem services. Focus will be given to creating green jobs and enhancing access to income of vulnerable and marginalized groups, including women and youths. Monitoring, evaluation and communication/reporting of GLI and related achievements will be strengthened, where reporting will not only focus on seedlings, but on hectares of restored land, size of land put under enhanced agroforestry practices, amount of fruit trees planted and produced and marketed fruits, established industrial and environmental forests, size of reduced deforestation of natural forests, type of restored ecosystem services, improvement in crop and animal productivity, number of jobs created, size of created economic transaction, and related benefits. The second phase will also focus on types of capacity built, innovated technologies and market linkages created.

**Lessons learned from GLI Phase 1**

The following lessons learnt from GLI Phase 1 were identified in discussions with EFD representatives during the consultations undertaken as part of the PIF development process, and will inform the design of interventions under the GLI Phase 2:

**Governance and institutional arrangements:** Under Phase 2, cross-sectoral collaboration should be improved, particularly at sub-national and local level. While great progress has been made in terms of reducing siloed approaches at federal level, this should be replicated at grassroots level. Several institutions are involved in

landscape management in Ethiopia, all of whom are working towards the goal of uplifting communities. However, there is a need to improve coordination and collaboration between these institutions. Under GLI, numerous institutions have worked together as part of the Steering Committee (chaired by MoA), and the Technical Committee (chaired by EFD). This demonstrates that at federal level, there is already a great deal of collaboration between institutions, but horizontal institutional collaboration should be improved at local level.

**Best practices:** Sites should be more appropriately identified for tree-based management, as there is currently insufficient species-site matching, ultimately causing low survival rates. Species-site matching should also account for the needs of communities (such as planting commercial species for woodfuel production), while actively promoting planting of indigenous species. Nurseries should be specifically focused on promoting these species. There has already been some success at doing so. Stakeholders noted that the practice a decade ago was dominated by fast-growing economic species, but there is a growing awareness of the need to plant indigenous species.

**Integrating fruit trees:** Under Phase 2, the integration of fruit trees in tree planting should be prioritized. In Southern Ethiopia, there is a long tradition of agroforestry practices which should be promoted in the LDCF project districts, with the objectives of enhancing access to better nutritional food systems and generating income by promoting value added marketing of agro-forestry products. Technical capacity for practices such as grafting should also be enhanced to reduce the time needed to produce fruit (from 10 years down to about 5 years when grafting).

**Site preparation:** An increased focus should be placed on proper preparation of planting sites. Specifically, tree planting sites should be prepared with adequate soil and water conservation in mind. This is already a technique that the GoE is using in some areas with great success.

Figure 16. Examples of enhanced site preparation techniques where seedling survival was high.

**Community mobilization:** The practice of mobilizing communities by promoting GLI through champions such as religious leaders should be encouraged and promoted under Phase 2. There is also a need to improve the involvement of pastoralists in the initiative. Since these communities have traditionally not been known to plant trees because they are nomadic, they should be encouraged to do so even when they leave an area.

**Model nurseries:** These should be developed to improve income generation by women and the youth (specifically landless youth), as well as other disadvantaged social groups, alongside other complementary diversified livelihood options. Model nurseries include improved construction practices (such as using water recycling methods), promoting the production of vermicompost, and integrating beekeeping with nurseries. Vermicompost and beekeeping provide an opportunity for those involved to earn an income throughout the year.

Figure 17. Examples of model nurseries in Oromia Region.

**Community-managed assisted natural regeneration:** Restoration of forest landscapes should be encouraged by promoting assisted natural regeneration. This includes the use of fruit trees, planting trees that are resistant to acidified soils to improve crop productivity, silvicultural management of grazing areas, and fodder tree promotion to improve livestock productivity.

Figure 18. Examples of assisted natural regeneration in Ethiopia under the GLI.

## **Site selection and project target areas**



The proposed LDCF project will be implemented in 6 priority districts (in five regional states) that have been identified as strategic areas for climate change adaptation through integrated natural resources management and climate-smart agricultural practices and livelihood options. The focus of the LDCF project will specifically be in midlands and highlands, where smallholder farming is practiced — the terrain that is most degraded in Ethiopia. The preliminary targeted areas of the LDCF project are shown in Annex C.

The selected districts are vulnerable to impacts of climate change, due to extensive deforestation and landscape degradation that has occurred there, high population density and declining agricultural productivity. There are fragmented but still critical ecosystems of natural forests that should be reconnected through establishing corridors with the support of the LDCF finance. Efforts were made to select districts adjacent or near to others targeted by the project, or districts next a district implementing nature-based solutions. This is to create a cluster of landscape restoration sites in the country. The prioritization of target areas will encompass the implementation of strategic interventions adjacent to areas that have funded activities (including those implemented under GLI Phase 1, as well as other relevant initiatives), to create green corridors of growth and innovation. Reforestation activities will be implemented in areas where contiguous forest can be re-established. The identified target areas will be used as demonstration sites where the benefits of climate change adaptation and nature-based solutions will be showcased for eventual upscaling to other parts of Ethiopia. Beneficiary districts were selected in consultation with the respective regional governments to ensure ownership. The selection of districts was also based on the achievements of regions in implementing the GLI over the past five years. Therefore, the selected districts are those where GLI initiatives can most readily be upscaled and connected, and where the implementation of the proposed LDCF project will likely have the greatest impact and potential for success.

## Relevant stakeholders and their roles in the project

Stakeholder	Role	Description
Ethiopian Forestry Development (EFD)	Executing Agency	EFD is an autonomous federal government institution, and one of the organs of the Ministry of Agriculture. EFD was established in 2022, merging the Ethiopian Environment and Forest Research Institute (EEFRI) and the Forestry sector from Environment, Forest and Climate Change Commission (EFCCC). Funding for EFD is granted directly by parliament. EFD has state-level bureau that report to the central, federal office.
Ministry of Agriculture (MoA)	Project partner for development, implementation and monitoring	MoA is mandated with maintaining food security, water-use and infrastructure, agricultural development and the conservation and use of natural resources, including forests. MoA is a partner in the implementation of the Green Legacy Initiative (GLI).
Ministry of Planning and Development (MoPD)	Project partner for development, implementation and monitoring	MoPD is the primary government institution responsible for national planning and development and plays a key role in Ethiopia's sustainable growth and socio-economic transformation. MoPD is a partner in the implementation of the GLI.
Ministry of Water and Energy (MoWE)	Project partner for development, implementation and monitoring	MoWE is Ethiopia's leading government institution tasked with improving the overall welfare of society through developing and managing water and energy resources equitably, sustainably and in an integrated manner. MoWE is a partner in the implementation of the GLI.
Regional Governments and District Councils	Project partner for development, implementation and monitoring	The project is being developed in close collaboration with regional governments. Given that Ethiopia has a federal system, this is crucial for the buy-in and implementation of the project. Regional governments have assisted in the identification of project target areas.
Ministry of Women and Social Affairs (MoWSA)	Project partner for development, implementation and monitoring	MoWSA was established in 2014 to merge the Ministry of Labour and Social Affairs with the Ministry of Women, Children and Youth Affairs. MoWSA is responsible for all matters pertaining to the social affairs of persons with disabilities, the elderly, the poor and destitute, and vulnerable segments of the country's population. During the full project development, MoWSA will be involved early on to ensure that gender and intersectionality are fully integrated into the project design.

Agricultural Bureau	Project partner for development, implementation and monitoring	The Agricultural Bureau is the MoA's arm at local level.
Environmental Protection Authority	Project partner for development, implementation and monitoring	The EPA is a federal institution tasked with managing the environment of Ethiopia. The EPA's mission is to enhance good environmental governance through removing the constraints faced by public agents, individuals, civil society and the private sector to know, explore and utilize fully their own potentials to enlarge their choices for understanding their respective functions in an environmentally sound manner.
National Meteorological Agency (NMA)	Project partner for development, implementation and monitoring	The NMA analyses and studies atmospheric data and provides weather forecasts and early warnings on the adverse effects of weather and climate in Ethiopia. The Agency is responsible for: i) establishing and operating the national meteorological network; ii) collecting and exchanging data, publishing and disseminating data and forecasts; iii) giving advanced early warning and disseminating advice and educational information; and iv) controlling air pollution. During the full project development, NMA will be engaged to effectively integrate climate and weather data in the adaptation planning and interventions.
CIFOR-ICRAF	Project partner for development, implementation and monitoring	CIFOR-ICRAF collaborates closely with government partners, research institutions, civil society, and the private sector for the transformation of rural livelihoods in agriculture and forest landscapes in Ethiopia.
Forest Research Center (FRC)	Project partner for development, implementation and monitoring	The FRC is doing research on the production of key species, including indigenous and commercial tree species.
Ethiopian Institute for Agricultural Research (EIAR)	Project partner for development, implementation and monitoring	The EIAR is involved in agricultural research and could be involved in the project to share best practices and the latest research on agricultural production in target areas.
NGOs	Potential project partners/active in relevant sectors	GoE works with NGOs for service delivery at community level using a mixed implementation model between Development Agents and NGOs. NGOs have also worked on value addition for many years. At the national level, relevant NGOs to engage in the development and implementation of the project include Farm Africa, World Vision and the Environment and Coffee Forest Forum (ECFF). Furthermore, the Population, Health and Environment Ethiopia Consortium (PHEEC) is a collection of non-state actors working closely with EFD and MoA in the areas of forest management, food systems, market access, capacity development, etc, and can provide an entry point for engaging with various civil-society actors.
Agricultural cooperatives	Potential project partners/active in relevant sectors	There are approximately 7,000 cooperatives around Ethiopia. These entities will potentially be involved in the implementation of the project's agriculture and agroforestry interventions.
Development Agents	Potential project partners/active in relevant sectors	There are approximately 65,000 Development Agents (DAs) (the local term used for extension workers) around the country, most of whom are graduates. There is approximately 1 DA per 1,800 people on average, and approximately 1 DA for every 600 farmers <sup>[1]</sup> .
Media	Awareness raising	The media played a key role during the first phase of GLI in raising awareness of the need for tree planting.
Sustainable Environment and Development Action (SEDA)	Gender mainstreaming	SEDA is active across four areas of work, including environmental protection and conservation, livelihood development, socio-economic empowerment of women and community-based disaster risk management.
Save Mothers & Children of Oromia (SMCO)	Gender mainstreaming	SMCO works on women's empowerment through promotion of <i>inter alia</i> literacy on climate change and ecology, livelihoods and awareness raising.
Private sector actors	Potential project partners	Private sector actors will play an important role in the implementation of the project. In particular, the private sector will be fully engaged in the development and operationalization of the adaptation

	<p>finance scaling-up mechanism and resource mobilisation strategy under project Component 1, in order to address key barriers to private sector investment in adaptation. In addition, private sector actors will be engaged to support the value addition and market linkages for agricultural and nature-based products, access to finance, and capacity development and mentorship on financial management and entrepreneurship under project Component 3.</p>
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## B. PROJECT DESCRIPTION

### Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

### Adaptation needs

**In the absence of urgent intervention, climate change will continue to worsen the existing challenges caused by the socio-economic transformation occurring in Ethiopia. The impacts of climate change threaten to reverse the significant achievements of the GoE in recent decades in poverty reduction and environmental protection and will continue to undermine the country's efforts to become a food self-sufficient and climate-resilient country. A concerted effort is needed to scale up and link existing interventions implemented under Phase 1 of the *Green Legacy Initiative (GLI)*, and to enhance community resilience by conserving natural resources and forests, restoring degraded landscapes, strengthening the climate-resilience of agricultural and nature-based livelihoods, creating green jobs, and developing value chains. In addition, awareness should be raised in vulnerable rural communities (particularly among the youth) about mechanisms for livelihood diversification that enable them to engage in different income-generating activities and comprehensive watershed management which will increase their adaptive capacity.**

To reduce the impacts of climate change on women specifically, several adaptation needs should be addressed. These include: i) integrating gender into drought risk management planning and implementation to ensure efficient drought preparedness and response; ii) providing support to community-based coordination mechanisms to strengthen gender-sensitive natural resource conflict management; iii) prioritising awareness raising and capacity building for women for climate action, disaster risk reduction and environmental protection; and iv) increasing knowledge and understanding of climate impacts on women and girls by undertaking assessments and surveys in a gender-responsive manner.

The response by the GoE to the impacts of climate change through the proposed LDCF-financed project should be directly aligned with the prioritized intervention areas described in Ethiopia's strategic and policy frameworks (see Section C below). In addition, the project should build on the achievements and lessons learned of the first round of the GLI.

### Barriers to adaptation

While the GoE has demonstrated its commitment to reducing the impacts of climate change on vulnerable communities, several barriers to adaptation remain that inhibit the full realization of climate resilience in the context of the proposed project. These barriers are summarized below.

## **Barrier 1: Institutional capacity**

Although the GoE has invested heavily in environmental protection, institutional capacity at national, sub-national and local levels to plan and execute climate-resilient landscape restoration remains limited. Stakeholders consulted during the 2015 Forest Sector Review reported growing confidence in the transparent administration of forest resources in Ethiopia due to the implementation of forest law and regulation. However, implementation and enforcement of policies and regulations is still insufficient as a result of capacity gaps.

## **Barrier 2: Technical and financial capacity at the community level**

There is limited financial and technical capacity of and knowledge amongst local communities for implementing climate-resilient and value addition practices related to agricultural and forest-based livelihoods.

## **Barrier 3: Private sector investment**

Private sector investment in climate change adaptation in Ethiopia is limited as a result of several factors. Private sector actors are inhibited by a general lack of knowledge and limited technical skills for management of forestry enterprises that support climate-resilient local economies. While this has been changing in recent years, it is the result of the historical business economic structure and traditional business models of the country. Specifically, the traditional system was characterized by a ‘plant, harvest, sell’ mentality, with limited focus on value-addition, and knowledge-based trade being historically the realm of traders from other countries (such as Ethiopia’s Middle Eastern and North African neighbours). As a result, there are still limited onsite options for local communities related to value addition of and a lack of market linkages for forest-based products to support the building of adaptive capacity. In the forestry sector, several key factors have also restricted economic success, including: i) limited raw material supply and insecurity of resource access; ii) restricted access to finance and incentives, and limited knowledge of available financing tools; and iii) an unfavourable macro-economic policy environment with limited options for foreign direct investment and exposure to high inflation and volatile international markets.

## **Barrier 4: Access to agroforestry technologies**

There is a lack of financial resources and access to regenerative agroforestry technologies (nature-based solutions) for climate resilience amongst rural smallholder farming communities. As a result, these communities do not have the means to sustainably transition to climate-resilient practices that both strengthen adaptive capacity and promote forest conservation.

## **Barrier 5: Knowledge and awareness of adaptation options – including NTFP development potential**

There is insufficient knowledge and commitment for adoption of transformational climate change adaptation measures amongst rural communities dependent on agricultural and forest-based livelihoods, as well as on the local potential of tree and dry forest-based products including NTFPs, livestock feed, food trees and the associated value chains, and underdeveloped market linkages with local and export market to diversify livelihoods under climate change conditions.

## **Barrier 6: Lack of a coordinated and standardized approach to planning, monitoring, evaluating and reporting for climate change adaptation under GLI**

Planning, monitoring, evaluation and reporting on climate change adaptation under GLI, including its climate change adaptation benefits, is currently not aligned across governmental institutions at a federal level, nor between national, sub-national and local entities. The lack of a harmonized and coordinated approach hinders data and information sharing on climate-resilient GLI best practices. Consequently, the potential for using data and information to inform policy-making and planning, as well as scaling up and replication to support adaptation goals is diminished.

### **Barrier 7: Limited integration of local-level climate data and information to inform adaptation planning and interventions under the GLI**

Under phase 1 of the GLI, while climate data and information was used to inform interventions, national-level data was used and it was not specifically tailored to ensure that adaptation benefits were maximised, and the National Meteorological Institute (NMI) did not play a central role. This is compounded by the lack of weather stations in rural areas, which limits the preparation of locally-appropriate climate information products and advisories to support climate-resilient restoration and conservation of degraded forest landscapes, as well as climate-resilient nature-based and agricultural livelihoods.

### ***Barrier 8: Lack of finance to support the implementation of climate change adaptation at scale***

While the need for climate change adaptation interventions within the GLI and amongst vulnerable rural communities living across Ethiopia's agro-ecological landscapes is clear, adaptation finance remains largely limited to donor investments through projects. This limits the scaling-up potential of adaptation across landscapes and large numbers of beneficiaries. While public budgets are available for ongoing GLI activities, such as restoration and landscape management, few resources are specifically allocated to adaptation. This is compounded by the lack of a resource mobilisation strategy targeting a variety of financing sources to support the scaling up of climate change adaptation.

### **Assumptions to support the success of the preferred adaptation solution**

- **GLI remains a GoE priority receiving continued support and funding — Assumption 1.**
- **Capacity for climate-resilient landscape restoration is retained and transferred at the national, sub-national and local levels — Assumption 2.**
- **Community leaders and members actively support the project and its interventions — Assumption 3.**
- **Women and youth are interested and get involved in project activities stimulating behavioural change towards an ecosystem-based approach that promotes adaptation, climate-resilient agricultural practices and forest conservation — Assumption 4.**
- **Over time, knowledge and lessons generated by the project are gradually adopted at all levels resulting in scaling and replication — Assumption 5.**
- **Restoration, conservation and other project activities are not prevented by local conflicts or extreme climatic events — Assumption 6.**

### **Enablers to support the success of the preferred adaptation solution**

- **Communities are incentivized to support the project interventions because of the associated adaptation benefits — Enabler 1.**

- Sustained demand for nature-based products for forest landscapes — Enabler 2.
- The project demonstrates proof of concept of the scaling up of climate-resilient GLI best practices as a scalable EbA approach — Enabler 3.

## Project Strategy

### Overview of Theory of Change

The main objective of the proposed project is to strengthen the climate change resilience of Ethiopia’s most vulnerable rural communities through ecosystem-based adaptation (EbA) by scaling up best practices and building on lessons learned from Phase 1 of the Green Legacy Initiative (GLI), and thereby addressing the climate vulnerabilities described in the preceding section. The project’s objective will be achieved through four interrelated components. These include: i) enabling environment for EbA by scaling up climate-resilient GLI best practices<sup>[5]²</sup>; ii) forest and agricultural landscape management for ecological and socioeconomic resilience in Ethiopia’s midlands and highlands; iii) climate-resilient agricultural and nature-based livelihoods and economies; and iv) knowledge management, monitoring and evaluation, and resource mobilisation for scaling up climate-resilient GLI best practices. Components 1 and 4 will provide the macro-level enabling conditions required to scale up the proof of concept of climate-resilient GLI best practices as an EbA approach demonstrated under Components 2 and 3. Through Component 1, horizontal coordination and collaboration for EbA will be implemented at the landscape level. This will be supported by generating knowledge and attracting investment under Component 4 to support the implementation of EbA across agro-ecological landscapes. Component 2 will see the demonstration of EbA (restoration, conservation and agroforestry) as a climate-resilient integrated landscape management approach, while Component 3 will support livelihood diversification, improved agricultural production and food security under climate change conditions, value addition and market linkages to build adaptive capacity. The approach of combining climate-sensitive restoration and management of upstream forests and agro-ecological landscapes with strengthening the climate-resilience of agricultural and natural resource-based livelihoods downstream, will therefore address both immediate and future adaptation needs.

By focusing on climate change adaptation, the proposed project will build on the achievements and lessons learned and scale up best practices from the first round of the GLI, thereby ensuring that the investments made under this initiative are sustainable under future climate conditions. A description of best practices and lessons learned GLI Phase 1 is provided in Section A, under ‘Alignment with country priorities’. The proposed project will form the foundation of GLI Phase 2 by promoting EbA in targeted areas, specifically by improving the quality of planning, implementation, monitoring and reporting, planting high-value agroforestry seedlings, strengthening the climate-resilience of agricultural practices, promoting and developing innovative agricultural and nature-based livelihoods and value chains, and creating more green jobs for women and youth.

Adaptation benefits that will be delivered through the project are presented in the table below.

**Table 2. Project adaptation benefits and contributing interventions.**

Adaptation benefit	Contributing interventions
1. Climate change adaptation across local communities through the increased resilience of natural assets, and diversified and strengthened livelihoods and sources of income	<ul style="list-style-type: none"> <li>• Increased capacity for EbA within national and district-level government — Outputs 1.1.1 and 1.1.2</li> <li>• Increased community-level capacity for EbA — Output 1.1.3</li> <li>• Increased availability of climate data and information services to support informed climate change adaptation decision making — Output 1.3.1</li> </ul>

	<ul style="list-style-type: none"> <li>• Resilient natural resource/ecosystem service base through climate-responsive restoration, conservation and management of forest and agro-ecological landscapes — Outputs 2.1.1, 2.1.2 and 2.2.1</li> <li>• Vulnerable communities supported to take up agricultural and nature-based livelihoods and income-generating practices that strengthen adaptive capacity — Outputs 3.1.1, 3.1.2 and 3.1.3</li> </ul>
2. Increased area of forest and agricultural land managed for climate resilience	<ul style="list-style-type: none"> <li>• Climate-responsive restoration, conservation and management of forest and agro-ecological landscapes — Outputs 2.1.1, 2.1.2 and 2.2.1</li> <li>• Vulnerable communities supported to take up agricultural and nature-based livelihoods and income-generating practices that strengthen adaptive capacity — Outputs 3.1.1, 3.1.2 and 3.1.3</li> </ul>
3. Increased awareness of and training on climate change impacts and appropriate adaptation responses	<ul style="list-style-type: none"> <li>• Increased capacity for EbA within national and district-level government — Outputs 1.1.1 and 1.1.2</li> <li>• Increased community-level capacity for EbA — Output 1.1.3</li> <li>• Increased availability of climate data and information services to support informed climate change adaptation decision making — Output 1.3.1</li> <li>• Communities trained on livelihoods that promote climate resilience — Output 3.1.1</li> <li>• Improved management and sharing of knowledge on climate change impacts and adaptation responses under GLI — Output 4.1.2</li> </ul>

### *Innovativeness of the project strategy*

The core avenue of project innovation is climate-proofing the interventions under the second phase of the GLI and ensuring that they are selected and designed to maximise adaptation benefits of the initiative. A key innovation area is the establishment of an adaptation finance scaling-up mechanism for the GLI, as part of the “GLI and Degraded Land Special Grant” which is currently undergoing governmental approval. Combined with the development of a resource mobilization strategy to catalyse additional investments from public and private sources, this will ensure that there is a continued flow of finance dedicated to adaptation interventions within phase 2 of the GLI, prioritising climate resilience, which will be a major innovation compared to phase 1. The integration of climate change adaptation into the GLI’s second phase will also be supported by working closely with the National Meteorological Institute (NMI) to generate and analyse local level climate data, followed by the tailoring of results for the provision of climate information services for project target districts to inform climate-resilient forest landscape restoration and conservation, as well as climate-resilient productive livelihoods of vulnerable local communities. Climate change-related data and information will be combined with remote sensing, land degradation and restoration suitability data of the project target areas and the use of digital platforms such as openforis.org to ensure that agro-ecological landscape restoration, conservation and livelihood planning at the landscape-level are scientifically informed. This will be supported by a diverse approach to building vertical and horizontal capacity and coordination for EbA within the GLI, including transforming approaches to community forest management (CFM) to ensure that they consider climate change scenarios and appropriate responses. A final innovation of the project that will support the climate-resilient transformation of forest and agro-ecological landscape management under the GLI is the establishment of a long-term monitoring, evaluation and reporting system, which will allow approaches to pivot based on successes or failures, as well as for scaling up and replication to take place across the country.

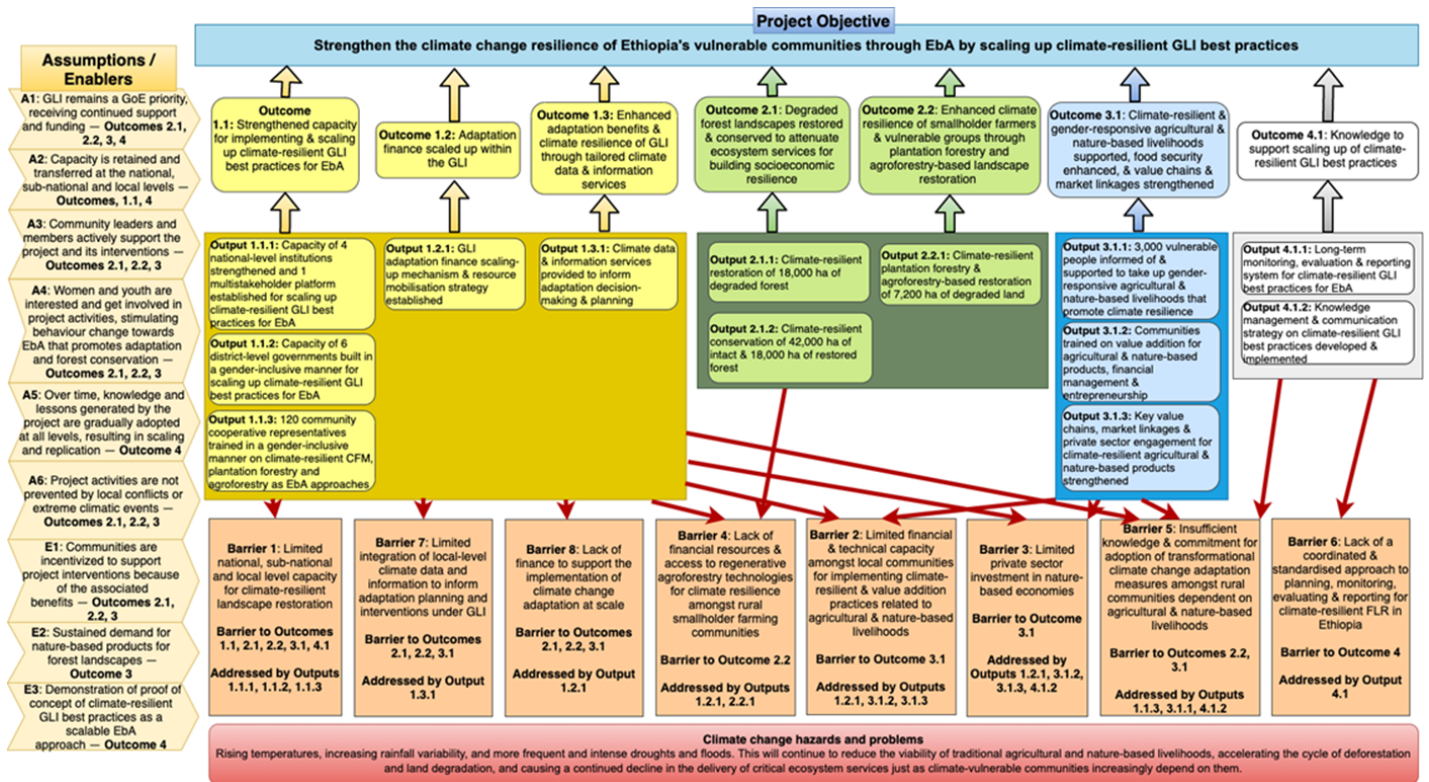


Figure 19. Theory of change diagram.

## Detailed Description of Project Components

### Component 1: Enabling environment for climate change adaptation through scaling up of climate-resilient GLI best practices

#### Outcome 1.1: Strengthened capacity for implementing and scaling up climate-resilient GLI best practices for EbA

*Output 1.1.1: Capacity of 4 national-level institutions strengthened and 1 multistakeholder platform established for scaling up climate-resilient GLI best practices for EbA*

At the national level, capacity for planning and implementing climate-resilient GLI best practices as an adaptation approach of EFD, MoA, MoWE and MoPD will be strengthened — contributing to addressing Barrier 1. This will be based on a capacity needs assessment conducted during project preparation (PPG phase), as well as gaps identified during the first phase of GLI. Capacity strengthening will focus on using data and information generated via the monitoring, evaluation and reporting system established under Component 4 to inform scaling up of GLI best practices. Importantly, capacity of the 4 institutions will be built for collaborating with national, sub-national and local-level institutions and other stakeholders (such as farmers, researchers and policy-makers) for climate change adaptation planning, monitoring, evaluation, reporting and knowledge management. This will be complemented by the establishment of a multistakeholder platform to support a coordinated approach to climate change adaptation planning and implementation under GLI. In total, 20 staff will be trained (5 per institution), 50% of whom will be female.

*Output 1.1.2: Capacity of 6 district-level governments built in a gender-inclusive manner for scaling up climate-resilient GLI best practices for EbA*

To advance climate-resilient GLI best practices as an EbA approach at the Woreda (district) level, the proposed project will build the institutional and technical capacity of local government departments in the target districts (contributing to addressing Barrier 1) — 60 staff (10 per district). All female staff (100%) within relevant government departments will be trained (specific capacity-building activities will focus on the needs of female staff only, including the consideration of risk of sexual exploitation, abuse and harassment in the office and field). This will include, amongst other things, enhancing capacity for forest landscape restoration, forest



conservation, agroforestry development, and soil and water resources management as climate change adaptation measures. Capacity building will also focus on using climate information and vulnerability and risk assessments to inform natural resources management and providing technical support to communities related to climate-resilient landscape restoration and forest-based economic activities. The implementation of climate change adaptation monitoring, evaluation and reporting system established under Component 4, will be supported by embedding a monitoring expert within the local government of each target district (6 in total). To ensure that capacity is built for integrated approaches to climate-resilient landscape restoration, cross-sectoral gender-inclusive training on the development and implementation of land use management, agricultural and natural resource plans will be undertaken, including training on and support for the mainstreaming of climate change adaptation into these plans. Capacity-building of 60 Development Agents (10 per district) will be conducted to support climate-resilient community forest management (CFM) and agroforestry amongst smallholder farming communities — see Outputs 1.3 and 2.2.1. The further development of this output will be informed by a capacity needs assessment to be undertaken during project development (PPG phase). All female staff within relevant government departments will be trained — the project will ensure that all of these women are accommodated and able to attend the trainings through scheduling and planning based on their needs. Key institutional stakeholders are *inter alia*: Ethiopian Forestry Development (Executing Agency), Ministry of Agriculture (Implementing Partner), Zonal and District Bureau of Agriculture, Cooperative Development Offices and CIFOR (Implementing Partner).

*Output 1.1.3: 120 community cooperative representatives trained in a gender-inclusive manner on climate-resilient community forest management (CFM), plantation forestry and agroforestry as EbA approaches*

Capacity for community-level climate-resilient CFM (including forest restoration and conservation), plantation forestry and agroforestry within the target districts will be built through the gender-inclusive training of 24 cooperatives (4 per target Woreda) — contributing to addressing Barriers 1 and 5. Training will take place via a training-of-trainers approach, whereby 5 members of each cooperative (120 people, 50% women) will be capacitated to upskill their fellow community members, fostering sustained training both during and beyond the project. Awareness raising and training on the use of data to better understand climate change impacts and the identification of adaptation solutions will be carried out through relevant CSOs. Trainings will be designed to accommodate women, youths and marginalized groups, to promote gender equality and social inclusion (GESI), with support from relevant CSOs.

To encourage a whole-of-society approach to climate-resilient CFM and improve coordination with local governmental institutions, a collaborative forum will be set up in each target area amongst all relevant community cooperatives (such as micro-watershed cooperatives). The forums also serve as platforms for coordination and communications amongst communities, government departments and other relevant stakeholders on climate-resilient forest landscape restoration, agroforestry, climate-resilient agriculture and nature-based livelihoods for local-level climate change adaptation. The forums will serve as entry points for all the community-level stakeholder groups, including women, youth and marginalized groups, to receive training from cooperative members related to climate-resilient CFM and agroforestry. To mitigate the leakage of environmental problems to the surrounding districts, cooperative and local government representatives from surrounding districts will be engaged via the forums. The further development of this output will be informed by a needs assessments in the target areas to be undertaken during project development (PPG phase). Key stakeholders are *inter alia*: community cooperatives, CSOs, Ministry of Agriculture, Zonal and District Bureau of Agriculture, Cooperative Development Offices and CIFOR.

#### Outcome 1.2: Adaptation finance scaled up within the GLI

Output 1.2.1: GLI adaptation finance scaling-up mechanism and resource mobilization strategy established

Through the proposed project, EFD will collaborate closely with the Ministry of Finance (MoF) to the “GLI and Degraded Land Special Grant” to channel finance to local-level EbA measures and climate-resilient nature-based and agricultural livelihoods in project intervention areas and beyond, through the development of an adaptation finance scaling-up mechanism — contributing to addressing barriers 2 and 4. This will allow vulnerable communities to access adaptation finance on a regular and sustained basis and to use it effectively in building climate-resilient local economies. Consequently, a model for local-level adaptation financing will be built via the proposed project, which can be scaled up across all communities situated within the GLI’s target areas.

The “GLI and Degraded Land Special Grant” is a special fund currently being developed to channel 0.5-1% of Ethiopia’s annual public budget to scale up GLI best practices and build capacities for the implementation of nature-based solutions. Currently, legal documents for the special fund, which have been prepared by EFD and MoF, are undergoing review by the Ethiopian Justice Ministry. Once the Justice Ministry review is completed, the special fund will be approved as a proclamation by Parliament (by 2024).

Local-level EbA measures and climate-resilient nature-based and agricultural livelihoods to be funded by the GLI adaptation finance mechanism within the “GLI and Degraded Land Special Grant” will be selected based on a set of criteria developed

in collaboration with EFD, MoF, Community Cooperatives, MoA and CIFOR. An indicative list of criteria will be developed during the PPG phase, including but not limited to EbA measures and livelihoods that: i) contribute to GLI objectives, building socioeconomic and ecological resilience; ii) complement ongoing restoration and livelihood activities in GLI target areas; iii) are expected to have minimal environmental and social risks and impacts; iv) have proof of concept/have already been piloted in a similar context and provided adaptation benefits (e.g., those to be implemented under Components 2 and 3 of the proposed project); v) are cost-effective; vi) are gender-inclusive; vii) align with Ethiopia's adaptation priorities (NDC, NAP, etc.); and viii) have a low risk of maladaptation and leakage. The final set of criteria will be used to guide the preparation of a menu of local-level EbA measures and climate-resilient nature-based and agricultural livelihoods to be implemented via the GLI with finance leveraged through the adaptation finance scaling-up mechanism.

To ensure that resources are available through the GLI for the sustained financing of local-level EbA measures and climate-resilient nature-based and agricultural livelihoods within the GLI, as well as to support their scaling up and replication, a resource mobilisation strategy will be developed. The strategy will include a financial model for using LDCF finance to catalyse additional investments from public and private sources, and will be developed based on the evidence generated through the monitoring, evaluation and reporting system to be established by the LDCF project (Output 4.1). This will include evidence generated through climate-resilient restoration and conservation of degraded forests and landscapes (Outputs 2.1.1 and 2.1.2), climate-resilient plantation forestry and agro-forestry (Output 2.2.1), and climate-resilient nature-based and agricultural livelihoods (Output 3.1.1), value chains and market linkages (Outputs 3.1.2 and 3.1.3). Additional finance (public and private) will then be leveraged to support the sustainability and scaling up of the project's adaptation measures.

Various innovative financial instruments will be considered to leverage additional finance for the continued funding of local-level EbA measures and climate-resilient nature-based and agricultural livelihoods through the GLI. These include sovereign wealth funds, guarantees, commercial finance, institutional and private equity investors, foundations, value-based impact investment climate finance, climate funds such as GCF and AF, payment for ecosystem services (PES) schemes and water funds. In addition, the resource mobilisation strategy will assess how the GLI can access international carbon finance/credits based on the mitigation benefits generated via the project's interventions (carbon removals and emissions reductions) to further fund EbA and climate-resilient livelihoods measures that have mitigation co-benefits. Relevant experience in carbon finance/credits from which the project can learn is already present in Ethiopia, such as through the Humbo Community-Based Restoration Site, Bale Forest Management Initiative and Oromia Results-Based Payment Initiative. The strategy will specifically target private sector actors for the leveraging of finance for ongoing investment in climate-resilient GLI best practices that promote adaptation — contributing to addressing Barrier 3. Output 1.2.1 will be further assessed and detailed during the PPG phase. Key stakeholders that will be involved include: EFD (Executing Agency) and MoF (Implementing Partner).

### Outcome 1.3: Enhanced adaptation benefits and climate resilience of GLI through tailored climate data and information services

#### Output 1.3.1: Climate data and information services provided to inform adaptation decision making and planning

To ensure that interventions under the second phase of the GLI are informed by climate projections and expected impacts, i.e. that they are climate resilient and actually result in tangible adaptation benefits, the project will support the collection and analysis of climate data, as well as the provision of climate information services to support decision making and planning for adaptation — addressing Barrier 7. With the National Meteorological Institute (NMI) as lead implementing partner of this output, a weather station will be erected in each of the project's six target districts to collect live weather data. The weather data will then be analysed with tailored climate information products being developed, as follows, for use under the second phase of the GLI.

- Climate projections (short and medium term) to inform the ongoing management of restoration and conservation activities in degraded forest landscape areas under future climate conditions (Outputs 2.1.1 and 2.1.2). NMI will work closely with EFD to ensure that the information generated from the analysis of climate data is appropriate.
- Climate advisories/information to support local climate-resilient nature-based and agricultural livelihoods supported by the project (Output 3.1.1). This will include information to inform planting and harvesting times, rainfall variability, expected length of wet and dry seasons, need for fodder production and provision, etc., which will allow communities to plan productive livelihoods accordingly under a changing climate. NMI will work closely with MoA and community cooperatives to ensure that the information generated from the analysis of climate data is appropriate. Climate information and advisories will be shared with beneficiary communities via community cooperatives.

This is a key innovation of the project, as interventions under the first phase of the GLI were not informed by tailored site-specific climate data and analysis to support climate change adaptation. Benefits of this approach will be captured via the long-term monitoring, evaluation and reporting system for climate-resilient GLI best practices to be established under Output 4.1.1. Such information will be used to support the scaling up of the use of climate data and information services to other

sites under the second phase of the GLI using adaptation finance leveraged under the financial mechanism to be established under Output 1.2.1. Key stakeholders include: NMI (implementing partner), EFD (Executing Agency), MoA (implementing partner) and community cooperatives.

## **Component 2: Forest and agricultural landscape management for building ecological and socioeconomic resilience in Ethiopia's midlands and highlands**

### Outcome 2.1: Enhanced ecosystem services for building socioeconomic resilience through the restoration and conservation of degraded forests and landscapes

#### *Output 2.1.1: Climate-resilient restoration of 18,000 ha of degraded forest*

18,000 ha of degraded forest in project's target midland and highland landscapes (~3,000 ha/district) will be restored using an EbA approach across clusters of project implementation target sites. This will promote landscape connectivity and improved ecosystem service delivery to vulnerable communities under current and future climate conditions with restoration being prioritised alongside areas of fragmented intact and previously restored forest, across mosaics of interacting land uses and management under various tenure and governance systems. The planning, decision-making and implementation related to the restoration (land use, restoration goals, strategies, etc.) will use a participatory approach to promote local ownership. This will further be supported by the identification of local-level champions (community and religious leaders) to drive the restoration process, as well as to advocate for and continue training on restoration in the future. Restoration is expected to increase the adaptation value of the forests relative to competing land uses and consequently lead to a reduction in deforestation and forest degradation across the landscape. Benefits will include restoring multiple ecological, social and economic functions across target landscapes and generating a range of ecosystem goods and services that support the climate-resilience of multiple downstream local stakeholder groups (including agricultural households), proofing them against drying conditions, increased rainfall variability and intensity, and the impacts thereof on agricultural and nature-based livelihoods productivity.

Climate-resilient restoration under the LDCF project will build on and draw from the best practices and lessons of the GLI. This will include using a variety of approaches (such as identifying suitable sites for tree-based management, active and passive restoration, seedling propagation and planting, etc.) that are adapted to the local social, cultural, economic, ecological and adaptation needs, and landscape history. It will be based on the latest science and best practice, and traditional knowledge, and will apply that information in the context of local capacities and governance structures. Ultimately, restoration activities will seek to enhance the climate resilience of the landscape and its stakeholders over the medium to long-term to changes in climate and other environmental conditions, while at the same time enhancing species and genetic diversity.

The success of the restoration activities will also be supported by the implementation of climate-resilient conservation practices under Output 2.1.2, and forest-based livelihood practices under Component 3. Water-efficient community nurseries, managed by local women, will be established to provide seedlings to sites where planting will be taking place. Indigenous seedlings will be used that are climate resilient (drought resistant and heat tolerant) and will provide multiple forest products to local communities (such as fruit), which support local food security and additional livelihoods under a changing climate. Detailed restoration plans and protocols will be developed during the PPG phase (including ecosystem mapping, species identification, maintenance needs, costs, etc.). The restoration protocols will be informed by climate projections and climate change vulnerability and risk assessments to ensure that the restored areas are resilient to ongoing and future climate changes and mitigate the impacts of associated hazards (such as droughts and floods). Climate change-related data and information will be combined with remote sensing, land degradation and restoration suitability data of the project target areas and the use of digital platforms such as openforis.org to ensure that restoration planning at the landscape-level is scientifically informed. This will be done in collaboration with the NMI and relevant scientific institutions, and will contribute to developing a model for climate-resilient restoration planning for Ethiopia. Key stakeholders that will be involved include: Ethiopian Forest Development (Executing Agency), CIFOR (Implementing Partner), Forest Research Centre (Implementing Partner), Ethiopian Biodiversity Institute (Implementing Partner), NMI (Implementing Partner).

#### *Output 2.1.2: Climate-resilient conservation of 42,000 ha of intact and 18,000 ha of restored forest*

Using ongoing forest conservation work of the GLI and restoration undertaken under Output 2.1.1 as a foundation, the project will extensively promote the climate-responsive conservation of 42,000 ha fragmented intact (~7,000 ha/district) and 18,000 ha of recently restored forest (Output 2.1.1) across the project's target areas, contributing to landscape connectivity and improved ecosystem service delivery to vulnerable communities under climate change conditions. This will be achieved through a participatory approach involving local communities (capacitated under Output 1.3), other community groups (including women's groups to ensure female representation) and local governmental institutions as key stakeholders. Conservation interventions will consider ongoing and projected climate changes and impacts (drying conditions, and increased rainfall variability and intensity), ensuring that health of intact forest and recently restored forest is maintained and strengthened, and that the supply of key ecosystem services (such as water and food) to downstream communities is ensured under current and future climate conditions, thereby

contributing to the climate resilience of agricultural and nature-based livelihoods. Conservation will be supported by promoting improved land management practices, including climate-resilient agroforestry (Output 2.2) and sustainable agricultural and forest-based livelihood practices (Component 3). Detailed forest conservation plans and protocols will be developed during the PPG phase. The conservation protocols will be informed by climate projections and climate change vulnerability and risk assessments to ensure that the conserved areas are resilient to ongoing and future climate changes and mitigate the impacts of associated hazards (such as droughts and floods). Climate change-related data and information will be combined with remote sensing, land degradation and restoration suitability data of the project target areas and the use of digital platforms such as openforis.org to ensure that agro-ecological landscape conservation at the landscape-level is scientifically informed. This will be done in collaboration with the NMI and other relevant scientific institutions, and will contribute to developing a model for climate-resilient forest landscape conservation for Ethiopia. Training and capacity building of relevant stakeholders will take place through field schools, with support from stakeholders such as: EFD (Executing Agency), CIFOR (Implementing Partner), Ethiopian Biodiversity Institute (Implementing Partner), NMI (Implementing Partner).

Outcome 2.2: Enhanced climate resilience of smallholder farmers and vulnerable groups through plantation forestry and agroforestry-based landscape restoration

*Output 2.2.1: Climate-resilient plantation forestry and agroforestry-based restoration of 7,200 ha of degraded land*

Building on ongoing GLI activities, climate-responsive plantation forestry and agroforestry interventions (also including woodlotting, afforestation and assisted natural regeneration) will be implemented across 7,200 ha (~600 ha/district) of degraded agroecosystems to improve the resilience of agricultural and nature-based livelihoods against climate change-related hazards such as droughts and floods. The project will focus on scaling up best practices, including plantation forestry, promoting the use of climate-resilient indigenous species (drought resistant and heat tolerant) and planting of high value agro-forestry seedlings such as fruit trees, that support improved agricultural productivity and food security, and promote the creation of green jobs. Implemented in coordination with Outputs 2.1.1 and 2.1.2, the agroforestry interventions will also contribute to improved landscape connectivity. Consideration will be given to balancing the ratio of indigenous species with fast-growing exotics that provide economic benefits. Output 2.2.1 will also include the establishment of a commercial plantation to support climate-resilient livelihood generation and income generation to build the adaptive capacity of local communities under Component 3. This output will be achieved through a participatory approach involving vulnerable smallholder farming communities, community cooperatives and local governmental institutions as key stakeholders, building on capacity built through Output 1.1.3. Detailed agro-forestry and plantation protocols will be developed during the PPG phase by EFD with support provided by MoA. The protocols will be informed by climate projections and climate change vulnerability and risk assessments to ensure that the interventions are resilient to ongoing and future climate changes and mitigate the impacts of associated hazards (such as droughts and floods). Climate change-related data and information will be combined with remote sensing, land degradation and restoration suitability data of the project target areas and the use of digital platforms such as openforis.org to ensure that agro-ecological landscape restoration at the landscape-level is scientifically informed. This will be done in collaboration with the NMI (implementing partner) and other relevant scientific institutions, and will contribute to developing a model for climate-resilient agro-forestry and plantation forestry for Ethiopia. Key stakeholders that will be involved include: EFD (Executing Agency), CIFOR (Implementing Partner), MoA (Implementing Partner), NMI (Implementing Partner).

Total area of land managed for climate resilience under Outcome 2.1 and 2.2's Outputs is 67,200 ha. This is broken down in the table below.

Output	No. of districts	Ha/district	Total ha
2.1.1: Climate-resilient restoration of 18,000 ha of degraded forest	6	3,000	18,000
2.1.2: Climate-resilient conservation of 42,000 ha of intact forest and 18,000 ha of restored forest (restored under 2.1.1)	6	7,000 intact forest & 3,000 restored forest	60,000
2.2.1 Climate-resilient plantation forestry and agroforestry-based reforestation of 7,200 ha of degraded land	6	1,200	7,200
<b>Total</b>			<b>67,200*</b>

\*18,000 ha of restored forest under Output 2.1.1 that is also conserved under Output 2.1.2 is only counted once.

Approximately 300,000 people (at least 50% female) will directly benefit from more resilient physical and natural assets as a result of 67,200 ha of land managed for climate resilience under Component 2. This is based on an estimation that approximately 10,000 households (5 people per household) per target district (6 in total) will directly benefit from the restored and conserved landscapes.

**Component 3: Climate-resilient agricultural and nature-based livelihoods and economies**

### Outcome 3.1: Climate-resilient and gender-responsive agricultural and nature-based livelihoods supported, and value chains and market linkages strengthened

#### *Output 3.1.1: 3,000 vulnerable people supported to take up gender-responsive agricultural and nature-based livelihoods that promote climate resilience*

Gender-responsive agricultural and nature-based livelihoods will be promoted to enhance the adaptive capacity of beneficiary communities and reduce the overexploitation of forest ecosystems as a climate change coping mechanism — contributing to addressing Barrier 5. This approach will complement forest restoration (Output 2.1.1) and conservation (Output 2.1.2), and agroforestry-related interventions (Outcome 2.2) by reducing unsustainable degradative practices and promoting livelihoods that strengthen community climate resilience and are reliant on healthy forest ecosystems. The promotion of agricultural and nature-based livelihoods is expected to increase the economic value of sustainably managed agro-ecological landscapes relative to competing land uses and consequently lead to a reduction in deforestation and forest degradation across the landscape. This will provide short-term tangible adaptation benefits (livelihoods that are resilient to climate change) to the target communities who will only benefit from restored ecosystems in the long term (Component 2). Consequently, it will incentivize and foster their continued support for the restoration activities.

Indicative climate-resilient livelihoods that will be supported by the project include: NTFP-based livelihoods — both harvesting and processing; bee keeping; as well as a transition to climate-resilient agricultural practices and post-harvest practices (that will reduce food loss and waste) that will support a transition to climate-resilient food systems. Specific agricultural crops and products that the project will target in terms of addressing climate vulnerabilities will include perennial crop such as fruit trees, grafted mangos, avocados, papaya, coffee, banana and false banana. In addition, the intensification and improved climate resilience of key crops such as teff, wheat and maize will be supported by increasing input supply, such as by improving access of farmers to hybrid crop species that are resistant to drought and pests. Support will potentially also include improved crop management, such as reduced tillage, crop rotation, efficient fertiliser use and crop diversification. To ensure the success of these interventions, support will be provided for climate resilient crop planning and access to extension services.

A detailed list of livelihoods will be prepared through a gender-inclusive livelihoods needs assessment, which will be undertaken during project development (PPG phase). The livelihoods needs assessment will be informed by climate change projections and vulnerability assessments, ensuring that climate change hazards (such as increasing droughts and floods) and the impacts thereof are addressed, promoting the selection of climate-resilient livelihoods (support provided by the NMI). Climate change-related data and information will be combined with remote sensing, land degradation and restoration suitability data of the project target areas and the use of digital platforms such as openforis.org to ensure that livelihood planning at the landscape-level is scientifically informed. Based on a capacity needs assessment conducted during the PPG phase, capacity-building of local government staff will be conducted to support climate-resilient livelihood diversification (staff and extension officers). Beneficiary community members (beneficiary selection methodology to be determined during PPG phase — gender responsive) will be trained on the implementation of livelihoods through field schools, amongst other methods. Focus will be placed on equipping women and youth to take up livelihoods that specifically build their adaptive capacity.

Climate-resilient agricultural techniques promoted will include permaculture, agroforestry, conservation agriculture, organic farming, the planting of appropriate drought-resilient crop varieties and post-harvest processing to reduce food loss and waste. Selection criteria will include: i) representativeness of farmers from across each of the intervention areas to ensure climate-resilient agricultural practices are demonstrated to as many people as possible, promoting autonomous upscaling; ii) willingness of farmers to adopt innovative agricultural practices; and iii) households whose main livelihood is farming. An important aspect of the climate-resilient agricultural practices will be the introduction of in-field water conservation and harvesting measures. These measures will include: i) contour ridges for crops; ii) contour bunds for trees; iii) semi-circular bunds; iv) triangular/v-shaped bunds; v) planting pits; vi) Meskat basins; vii) grass, shrub and tree runoff strips; viii) use of AI extension and pest and disease management technologies; and ix) cultivated runoff strips. The farmers will also receive agricultural inputs to facilitate the implementation of climate-resilient agricultural approaches, including: i) climate-resilient crop and seed varieties; ii) farming implements such as watering cans, hoes and wheelbarrows; and iii) equipment to implement in-field water harvesting and conservation techniques.

The identification of local-level champions (men, women and youth) will foster the uptake of climate-resilient agricultural and nature-based livelihoods, as well as advocate for and continue training on livelihoods in the future. To strengthen the climate resilience of livelihoods, training on the use climate data to better understand climate change impacts and the identification of adaptation solutions will be carried out. This will include the transferring of lessons learned from previous GLI activities. Key stakeholders under this output are: EFD, CIFOR, MoA, community cooperatives, NMI.

#### *Output 3.1.2: Communities trained on value addition for agricultural and nature-based products, financial management and entrepreneurship*

To support the success of the agricultural and nature-based livelihoods promoted under Component 3, beneficiaries will be trained in entrepreneurship, and business and financial management — contributing to addressing Barrier 2. Such capacity strengthening will enhance the success and long-term sustainability of the introduced and improved livelihoods, which will strengthen adaptive capacity and further incentivise a transition away from practices that degrade ecosystems under climate change conditions. The project will work closely with governmental stakeholders and build partnerships with private sector actors to ensure that ongoing mentorship is available — contributing to addressing Barrier 3. Activities will include providing linkages to value chains and markets, access to finance and capacity development. Women and youth will be prioritised under Output 3.1.2. The tentative implementing partner for this output is the Ministry of Agriculture.

*Output 3.1.3: Key value chains, market linkages and private sector engagement for climate-resilient agricultural and nature-based products strengthened*

Linked to the agricultural and forest-based livelihoods to be promoted under Output 3.1.1 and based on value chain and market assessments to be undertaken during project development (PPG phase), agricultural and forest-based product value chains and market linkages will be strengthened and greened — contributing to addressing Barrier 2. This will include developing value chains for bee keeping, poultry (chickens) and livestock such as sheep and goats. The REDD+ Investment Program has highlighted numerous lessons for value chain development of these products which will be adopted under the proposed LDCF project. In addition, market integration for crops such as wheat and maize will also be considered as potential interventions to strengthen value chains under this Output.

From an adaptation perspective, climate services can be integrated for strengthening the resilience of value chains to climate risks through the development of tailored climate risk assessments and participatory stakeholder consultations. Value chains will be reinforced by identifying key aspects related to the structure of the value chain, by identifying key relationships (e.g., exchange of products and information, market access, use of ICTs) between value chain actors and the private sector, key climate risks in the value chain, the choice of the most effective climate resilient strategies and practices, and providing tailored recommendations by targeting those most vulnerable to climate risks (including women and female-headed households), reaching scale with climate interventions — contributing to addressing Barrier 3. As a result, the viability of livelihoods under Output 3.1.1 will be enhanced, further incentivizing the uptake of non-degradative practices that enhance the adaptive capacity of vulnerable local communities and promote forest restoration and conservation.

**Component 4: Knowledge management, monitoring and evaluation (M&E) for scaling up climate-resilient GLI best practices**

Outcome 4.1: Knowledge and resources to support scaling up of climate-resilient GLI best practices

*Output 4.1.1: Long-term monitoring, evaluation and reporting system for climate-resilient GLI best practices for EbA*

Building on phase 1 of GLI and the FLR monitoring roadmap (EFD, 2023), the project will support the establishment of a system that will promote a coordinated and standardized approach to adaptation monitoring, evaluation and reporting in Ethiopia — contributing to addressing Barrier 6. Hosted by key stakeholder EFD, the implementation and maintenance of the system will be supported by academia and other research partners (MOUs signed as needed). Coordination will be supported via the multistakeholder platform established under Output 1.1.1. While centred nationally, the system will also inform monitoring, evaluation and reporting on adaptation at the regional and district levels, initially being piloted in the project's 3 target regions and 6 districts. Implementation at the district level will be supported by the embedding of a monitoring expert in local government of the target districts. The system will also capture the benefits of using tailored site-specific climate data and projections to inform climate-resilient forest landscape restoration and conservation planning under GLI, as well as the planning and implementation of nature-based and agricultural livelihoods under future climate conditions (Output 1.3.1). Key support related to the monitoring of such benefits will be provided by NMI.

The monitoring, evaluation and reporting system will not only focus on number of seedlings planted and survival rates, but on hectares of restored and conserved land, size of land put under enhanced agroforestry practices, amount of fruit trees planted and produced and marketed fruits, established industrial and environmental forests, the reduction in deforestation of natural forests, types of restored ecosystem services, improvement in crop and animal productivity, the number of jobs created, the size of created economic transaction, and related benefits. Importantly, adaptation benefits for local communities will be tracked, ensuring that all activities are adaptively managed to promote climate resilience. This will contribute to generating knowledge and data on long-term biophysical, social (adaptive capacity, gender equality) and economic benefits (incl. gender balance of such benefits) of the project. Furthermore, information and data produced will provide proof of concept that will inform policy making, planning, upscaling and replication and provide evidence required to leverage investment from development partners and the private sector, thus also contributing towards project Output 1.2.1 on upscaling adaptation finance within the GLI. The long-term monitoring, evaluation and reporting system will link to, continue and expand on the project's monitoring process. A framework design of this system will be developed during the PPG phase based on the EFD's FLR monitoring roadmap (2023).

*Output 4.1.2: Knowledge management and communication strategy on climate-resilient GLI best practices developed and implemented*

Knowledge (data and information) and lessons generated through Output 4.1.1, as well as that already available via GLI will be shared through knowledge exchange platforms already used by GLI. One of the key outputs will be to translate scientific knowledge for use at the local level (linking it to local conditions and needs). At the local level, exchange visits will be organized for community-level stakeholders — including women, youth, farmers, etc. — from neighbouring districts to share best practices and increase knowledge on climate-resilient forest restoration and conservation, agroforestry and forest-based livelihoods — contributing to addressing Barrier 5. This will support the autonomous uptake of some of the project’s interventions in surrounding areas and assist in preventing leakage of environmental problems from project sites. Knowledge will also be tailored to the needs of policy- and decision-makers, and the private sector to promote replication and scaling up of adaptation practices within the GLI, and leverage further investment into EbA (including from the private sector) — contributing to addressing Barrier 3. The communication strategy will be based on an initial stocktaking of past and existing communication efforts on climate change adaptation by relevant projects and initiatives (differentiating per target audience, esp. women and youths), allowing the assessment of existing gaps and best communication vehicles. A communication strategy will then be developed, featuring the preparation of communication material and disclosure on websites and social media, as well as other communication avenues.

*M&E output: Effective and participatory M&E implemented*

Based on the Monitoring and Evaluation (M&E) plan to be developed during project preparation (PPG phase), a participatory process for monitoring of project impacts will be implemented. The plan will be linked with the adaptation monitoring, evaluation and reporting system developed under Output 4.1. Monitoring data and information will be used to inform the adaptive management of the project and generate knowledge and lessons to be shared under Output 4.2 to be integrated into GLI, national and local planning processes. An independent mid-term review and terminal evaluation of the project will be undertaken to evaluate project progress and performance.

## **Coordination and Cooperation with Ongoing Initiatives and Project.**

Does the GEF Agency expect to play an execution role on this project?

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

### **Project governance approach**

UNEP will serve as the GEF Implementing Agency for the project through its Climate Change Adaptation Unit in Nairobi. Ethiopian Forestry Development (EFD) will serve as project Executing Agency, ensuring close alignment with the GLI (under EFD) and overseeing the support provided by implementing partners, including inter alia, Ministry of Agriculture, Ministry of Water and Energy, Ministry of Planning and Development, CIFOR, Ethiopian Biodiversity Institute, National Meteorological Institute, and relevant CSOs.

### **Coordination and cooperation with ongoing initiatives and projects**

During the development of the PIF, numerous potential synergies with ongoing projects and initiatives were identified. Many of these were informed by consultations with project representatives during the project development team’s in-country mission (see Section D below). Details of potential for cooperation are provided in Table 1 below — this is not an exhaustive list and contains the most relevant projects and initiatives. Importantly, the proposed project will be anchored within the GLI (see additional detail on GLI in Section A). Consequently, it will align and coordinate with GLI and its associated projects. This will ensure that the project is integrated into a landscape already receiving financial inflow for green growth and innovation. The proposed project will be set up adjacent to these areas, contributing to the establishment of

continuous green corridors that support climate-resilient green growth and innovation, as well as maximising the potential for the sharing of expertise and staffing. Focusing on Ethiopia’s degraded midland and highland areas, the project will complement similar initiatives being implemented in the country’s lowlands. Lessons and best practices from many of these projects and initiatives have been used to develop the indicative design of this project. The proposed LDCF project will also be developed in alignment with another proposed LDCF initiative, entitled ‘Promoting adaptation and resilience through innovation and entrepreneurship for green jobs and livelihood improvement in Ethiopia’ (UNIDO). The two LDCF projects will be fully complementary, as the UNIDO project is focused on livestock agriculture in the lowland areas while the UNEP project will be implemented in midland and highland areas and focused on crops and forestry. Additional consultations will be undertaken during the PPG phase to further detail areas of cooperation during implementation and strengthen partnerships.

Table 3. Ongoing initiatives and their alignment with the proposed project.

Ongoing initiative/project	Potential of proposed project for cooperation
<p><b>GEF-LDCF: Climate Change Adaptation in the Lowland Ecosystems of Ethiopia (2021-2027; UNDP; USD10,450,000).</b></p> <p>This UNDP initiative aims to promote climate change adaptation and sustainable economic growth among communities in Ethiopia’s lowland ecosystems (Afar, Amhara, Oromia, Somali, SNNPR and Tigray regions). This will be achieved through: i) strengthened technical capacity for planning diversified climate change adaptation practices; ii) adoption of climate adaptive management by local communities through accessible climate information and decision-making tools; and iii) implementation of climate change adaptation practices by communities in lowland ecosystems.</p>	<p>The proposed project will be designed to complement this LDCF project focused on Ethiopia’s lowland ecosystems through drawing from best practices and lessons learned during project design, and ensuring the sharing of expertise across the projects. Building on the adaptation work of this ongoing initiative in Ethiopia’s lowlands, the proposed project will ensure that an ecosystem-based model for adaptation is demonstrated in the country’s midlands and highlands, ensuring that climate-resilient landscape management practices are implemented across landscapes.</p>
<p><b>GEF-LDCF: Enhancing Adaptive Capacity of communities by up-scaling best practices and adopting an integrated approach in Ethiopia (2023-2028; UNDP; USD8.8 million).</b></p> <p>This UNDP initiative will promote the design and implementation of adaptation interventions to address the climate vulnerabilities of local communities at scale across Ethiopia. This will be achieved through: i) strengthened regional and local institutional and technical capacity for coordination of climate-resilient planning and investment; ii) enhanced access to climate-smart technologies and practices for cost-effective adaptation; iii) community and institutional capacity for integrated landscape management; and iv) gender-responsive options for alternative livelihoods transferred to community to build resilience and reduce climate change vulnerability.</p>	<p>During detailed project design, lessons and best practices from this UNDP initiative will be considered to complementarities are maximized. Specifically, capacity for climate change adaptation built under the partner project will contribute to the design and implementation of the proposed project. Relevant cost-effective climate-smart technologies introduced by the ongoing project, as well as alternative livelihoods, will be considered for replication in the proposed project under Components 2 and 3, respectively. Under the proposed LDCF project, other activities that are part of the UNDP project will also be upscaled, particularly those focussed on empowering women and the youth. This includes gender-responsive livelihood development which included training programmes for women and the youth. Within each Woreda, four groups were trained on and provided inputs for alternative income-generating livelihoods, entrepreneurship, business skills and leadership. The trainings were implemented in conjunction with the development of business plans in partnership with private sector stakeholders.</p>
<p><b>GCF FP: Resilient Landscapes and Livelihoods Project (2021-2026; World Bank; USD297.2 million).</b></p> <p>This GCF project is designed to improve climate resilience, land productivity and carbon storage, while also increasing access to diversified livelihood activities in selected vulnerable rural watersheds in Ethiopia’s highlands. While scaling up existing initiatives with demonstrated climate value and co-benefits, it will also pilot innovations including inclusive, bottom-up decision making with rural communities. Proposed interventions include targeting rural livelihood productivity and resilience through sustainable land management, low-emission resilient agriculture practices, and enhanced land tenure. This initiative will contribute to removing barriers to women’s ownership and control over assets.</p>	<p>As both projects will be implemented in Ethiopia’s highlands, a strong collaborative approach will be fostered from project development through to implementation. This will include the consideration of co-location for project sites and the sharing of staff and expertise. Importantly, the restoration of key highland forest landscapes under the proposed project (Component 2) will complement community-based adaptation activities under the GCF project, ensuring that the climate-resilience of both projects are amplified at the landscape level. The proposed project will also use any capacity building, livelihood, gender-inclusive and other relevant activities as platforms to build on as applicable.</p>
<p><b>GCF FP: Responding to the increasing risk of drought: building gender-responsive resilience of the most vulnerable communities (2019-2024; MoF; USD50 million).</b></p> <p>This GCF project will introduce improved water supply and management systems to increase local communities’ productive capacity</p>	<p>Although likely to be completed by the time the proposed LDCF project begins implementation, EFD and UNEP will ensure that best practices and lessons from the GCF project are used to inform project development and implementation. Any capacity built will be used to support project implementation, while planning of forest</p>



as well as the water ecosystem’s carrying capacity. The three main activities will be introducing solar-powered water pumping and small-scale irrigation, the rehabilitation and management of degraded lands around the water sources and creating an enabling environment by raising awareness and improving local capacity. Over 50% of the beneficiaries will be women, with 30% of households being female-headed.

restoration and conservation will take into account the need to complement the rehabilitation of degraded lands under the GCF project.

In addition to the projects described above, the proposed LDCF project will be aligned with or build on the following initiatives:

- **REDD+ Investment Programme**

REDD+ Investment Programme (RIP) is supported by the Norwegian Government and is one of the first major investments in REDD+ in Ethiopia. The programme is aimed at transforming the management of landscapes in Ethiopia’s major forest regions and focusing on restoration in areas where forests have been lost. The proposed project will, through EFD, work closely with RIP to ensure that interventions in the same or neighbouring landscapes are complementary, that resources (technical, financial, material) are being shared and that best practices and lessons are constantly being shared (via Component 4) to ensure that there is ongoing knowledge transfer between the two projects.

- **Farm Mechanization and Conservation Agriculture for Sustainable Intensification (FACASI) program**

The Farm Mechanization and Conservation Agriculture for Sustainable Intensification (FACASI) program focuses on identifying appropriate small-scale machinery (e.g., two-wheel tractors) to improve planting, harvesting, milling and transport among smallholder farmers. Under Component 3, the proposed project will work closely with FACASI to ensure that appropriate agricultural technologies, that are proven to be effective and support climate resilience in the local context are employed. The project will also share relevant knowledge generated with FACASI as implementation is rolled out and information and data are generated.

- **CRGE Facility gender mainstreaming strategy**

The overall goal of the CRGE Facility gender mainstreaming strategy is to enable vulnerable women and men, young girls and boys to improve their livelihood, to raise their incomes and strengthen their resilience to climate change by creating equitable and fair opportunities for men and women to support a paradigm shift to low-emission and climate-resilient development. The CRGE Facility Gender Mainstreaming Strategy is the first of its kind to develop a gender specific operation tool in the climate change interventions in Ethiopia. To ensure that gender is effectively mainstreamed into the full design of the proposed LDCF project and that gender-responsive activities are satisfactorily implemented, the project will draw from the strategy and engage closely with relevant actors.

- **National potential and priority maps for tree-based landscape restoration in Ethiopia (MoEFCC; WRI)**

The National Tree-Based Landscape Restoration Potential and Priority Maps constitutes a first step in planning Ethiopia’s large-scale, coordinated restoration efforts. The maps aim to guide decision-makers as to where more trees could benefit Ethiopian landscapes, which tree-based landscape restoration options could be implemented in these landscapes, and where to prioritize cross-sectoral implementation. The maps are the product of a cross-sectoral effort of national and regional experts. Under Component 2 of the proposed project, sites where tree planting will be prioritised as a restoration intervention will be informed by the national potential and priority maps, promoting a science-based approach to restoration.

## Core Indicators

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

## META INFORMATION – LDCF

LDCF true	SCCF-B (Window B) on technology transfer <b>false</b>	SCCF-A (Window-A) on climate Change adaptation <b>false</b>
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Is this project LDCF SCCF challenge program?

**false**

This Project involves at least one small island developing State(SIDS).

**false**

This Project involves at least one fragile and conflict affected state.

**false**

This Project will provide direct adaptation benefits to the private sector.

**false**

This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs).

**false**

This project will collaborate with activities begin supported by other adaptation funds. If yes, please select below

Green Climate Fund	Adaptation Fund	Pilot Program for Climate Resilience (PPCR)
<b>false</b>	<b>false</b>	<b>false</b>

This Project has an urban focus.

**false**

This project will directly engage local communities in project design and implementation

**true**

This project will support South-South knowledge exchange

**false**

This Project covers the following sector(s)[the total should be 100%]: \*

Agriculture	40.00%
Nature-based management	60.00%
Climate information services	0.00%
Coastal zone management	0.00%
Water resources management	0.00%
Disaster risk management	0.00%
Other infrastructure	0.00%
Tourism	0.00%
Health	0.00%
Other (Please specify comments)	0.00%
Total	100.00%

This Project targets the following Climate change Exacerbated/introduced challenges:\*

Sea level rise	Change in mean temperature	Increased climatic variability	Natural hazards
<b>false</b>	<b>true</b>	<b>true</b>	<b>false</b>
Land degradation	Coastal and/or Coral reef degradation	Groundwater quality/quantity	
<b>true</b>	<b>false</b>	<b>false</b>	

## CORE INDICATORS – LDCF

	Total	Male	Female	% for Women
CORE INDICATOR 1 Total number of direct beneficiaries	300,000	150,000.00	150,000.00	50.00%
CORE INDICATOR 2 (a) Area of land managed for climate resilience (ha)	67,200.00			

(b) Coastal and marine area managed for climate resilience (ha)	0.00			
CORE INDICATOR 3 Number of policies/plans/ frameworks/institutions for to strengthen climate adaptation	30.00			
CORE INDICATOR 4 Number of people trained or with awareness raised	3,260	1,630.00	1,630.00	50.00%
CORE INDICATOR 5 Number of private sector enterprises engaged in climate change adaptation and resilience action	24.00			

### Risks to Project Preparation and Implementation

Summarize risks that might affect the project preparation and implementation phases and what are the mitigation strategies the project preparation process will undertake to address these (e.g. what alternatives may be considered during project preparation such as in terms of consultations, role and choice of counterparts, delivery mechanisms, locations in country, flexible design elements, etc.). Identify any of the risks listed below that would call in question the viability of the project during its implementation. Please describe any possible mitigation measures needed. (The risks associated with project design and Theory of Change should be described in the “Project description” section above). The risk rating should reflect the overall risk to project outcomes considering the country setting and ambition of the project. The rating scale is: High, Substantial, Moderate, Low.

Risk Categories	Rating	Comments
Climate	Moderate	The occurrence of extreme climate events (such as drought, extreme rainfall events and floods) may compromise the implementation and success of restoration and livelihood-related activities. The occurrence of such events will be considered during the design of the relevant evidence-based adaptation interventions and monitored throughout project implementation (as part of the project’s M&E plan) to ensure that interventions are managed adaptively to mitigate any impacts. Capacity-building activities will focus on developing long-term adaptive strategizing skills among stakeholders and decision-makers, allowing them to respond appropriately to changing scenarios.
Environment and Social	Low	Limited community buy-in at intervention sites may impact the success of project implementation. This will be mitigated through

		<p>ongoing sensitization and engagement with beneficiary communities during full project development and implementation, ensuring a participatory that considers their needs and draws from their knowledge and experience of the local context. Appropriate safeguards and gender action planning will be undertaken during full project development to ensure that any risks to the environment and local communities are managed appropriately, and that gender equality and social inclusion (GESI) are integrated into project design.</p>
Political and Governance	Low	<p>Comprehensive and detailed consultations among national stakeholders will be undertaken throughout project preparation and implementation. The relevant federal government institutions in Ethiopia are supportive and committed to the project, and the project is aligned with national priorities. UNEP, as GEF Agency, will work closely with EFD, as well as Ethiopia's GEF Operational Focal Point (EPA) to foster ongoing political support for the project and ensure that governance remains adequate for successful implementation. The districts targeted for project implementation are considered politically stable.</p>
Macro-economic	Low	<p>During full project development, livelihood needs, market, value chain, etc., analyses and assessments related to forestry, agricultural and natural resource-based livelihoods to be supported will be undertaken. These will, in conjunction with robust stakeholder engagement, M&amp;E and annual work planning, inform the adaptive implementation</p>

		of related activities, accounting for as much macro-economic variability as possible. The project's exposure to external macro-economic shocks will be limited, as no significant imports of goods is expected.
Strategies and Policies	Low	The project is aligned with Ethiopia's existing relevant strategies and policies. Further reviews will be undertaken of relevant strategies and policies during project preparation and implementation (including through ongoing consultations with policy- and decisionmakers) to determine if improvements can be made.
Technical design of project or program	Moderate	Local and international technical experts will be procured by UNEP during project development (using PPG funds) to support the design of the project's technical interventions and M&E plan, ensuring that they are locally appropriate and informed by lessons learned and best practice. These experts will be supported by technical experts in relevant governmental institutions. Lessons and best practices from GLI Phase 1 will be used to inform project design and ensure alignment with other projects in the initiative. Extensive training will be provided to institutional stakeholders and local communities for the uptake and use of the project's adaptation interventions. Technical partners will also support project implementation and M&E, contributing to technical robustness and adaptive management of project activities.
Institutional capacity for implementation and sustainability	Low	Comprehensive and detailed consultations among relevant institutions will continue throughout project development and implementation. A capacity needs

		assessment of relevant institutions will be undertaken during project preparation to inform capacity-building during implementation, which will also support project sustainability. Given that the project will be part of the broader GLI, capacity within and generated through the initiative will support implementation. Anchoring the project in GLI will also contribute to sustainability of the project.
Fiduciary: Financial Management and Procurement	Low	As GEF agency, UNEP will ensure that all financial management and procurement processes are conducted as per agreed fiduciary standards. This will be supported by the strong operation capacity of EFD (Executing Agency). The institutional arrangements for project execution will be designed based on the capacities of UNEP, EFD and implementing partners. The financial and institutional feasibility of all proposed activities will be thoroughly assessed during PPG and the intervention plan will be tailored accordingly.
Stakeholder Engagement	Low	Extensive stakeholder engagement will continue to be undertaken during project preparation and implementation, with special focus on inclusive engagement processes for women, youth and other vulnerable groups. This will be informed by the development of detailed stakeholder engagement plans.
Other		
Financial Risks for NGI projects		
Overall Risk Rating		

#### C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

## Alignment with GEF Programming Strategy

**The proposed project is aligned with the GEF Programming Strategy on Adaptation to Climate Change for the Least Developed Countries Fund and the Special Climate Change Fund (July 2022 to June 2026). The project is aligned with the LDCF Priority Areas as follows:**

- **Scaling up finance for adaptation** — By leveraging the successes of the GLI’s first phase, drawing on its high-level political support, and increasing the awareness of GLI as an initiative that is not only focused tree planting, but rather a strategy for sustainable economic development under current and future climate conditions. Importantly, the project will support the establishment of an adaptation finance scaling-up mechanism for the GLI, as part of the “GLI and Degraded Land Special Grant” which is currently undergoing governmental approval Component 1. Combined with the development of a resource mobilization strategy to catalyse additional investments from public and private sources, this will ensure that there is a continued flow of finance dedicated to adaptation interventions within phase 2 of the GLI, prioritising climate resilience. The proposed project will also strengthen collaboration between stakeholders working across agro-ecological landscapes in Ethiopia through the establishment of a multistakeholder platform, thus supporting policy coherence for adaptation and the mobilization of further adaptation finance (Component 1).
- **Innovation, technology transfer and private sector engagement** — The core avenue of project innovation is climate-proofing the interventions under the second phase of the GLI, and ensuring that they are selected and designed to maximise adaptation benefits of the initiative. A key innovation area is the establishment of adaptation finance scaling-up mechanism for the GLI, as described above (Component 1). A core aspect of the adaptation finance scaling-up mechanism will be the development of a resource mobilisation strategy that prioritises private sector engagement. The integration of climate change adaptation into the GLI’s second phase will also be supported by working closely with the National Meteorological Institute (NMI) to generate and analyse local level climate data, followed by the tailoring of results for the provision of climate information services for project target districts to inform climate-resilient forest landscape restoration and conservation, as well as climate-resilient productive livelihoods of vulnerable local communities (Component 1). Climate change-related data and information will be combined with remote sensing, land degradation and restoration suitability data of the project target areas and the use of digital platforms such as openforis.org to ensure that agro-ecological landscape restoration, conservation and livelihood planning at the landscape-level is scientifically informed. This will be supported by a diverse approach to building vertical and horizontal capacity and coordination for EbA within the GLI, including transforming approaches to community forest management (CFM) to ensure that they consider climate change scenarios and appropriate responses. A final innovation of the project that will support the climate-resilient transformation of forest and agro-ecological landscape management under the GLI is the establishment of a long-term monitoring, evaluation and reporting system, which will allow approaches to pivot based on successes or failures, as well as for scaling up and replication to take place across the country (Component 4) — this will ensure that proven adaptation technologies are transferred across Ethiopia via the GLI.
- **Whole-of-society approach** — By leveraging the broad support that already exists in Ethiopia for GLI. The initiative is supported by communities across the nation, with participation at all levels of society. The proposed project will leverage this support and direct it beyond GLI’s current focus to specifically focus on engaging Ethiopia’s population to act together to further improve land management practices, with the aim of supporting climate change adaptation and building climate resilience of communities. Specifically, the project will strengthen institutional capacity of national-level institutions, district-level governments and community cooperative for implementing climate change adaptation interventions as part of the second phase of the GLI (Component 1). Partnerships will also be built via a multistakeholder platform to support adaptation under GLI (Component 1), as well as the generation and dissemination of knowledge on adaptation practices under GLI (Component 3).

## Alignment with country priorities

- The project is aligned well with Ethiopia’s international climate commitments, as well as with its national strategic and policy frameworks. The key areas of alignment of the project with Ethiopia’s national priorities area outlined below.

- **Paris Agreement, the Bonn Challenge, the New York Declaration on Forests and the AFR100:** Ethiopia pledged to restore 22 million ha of degraded land and forests by 2030, out of which 15 million ha is as part of the Bonn Challenge.
- **National Adaptation Plan (NAP, 2019):** The project will contribute to eight of the 18 major adaptation options identified in NAP 2019, namely: i) enhancing food security through improving agricultural productivity in a climate smart manner; ii) strengthening sustainable natural resource management through safeguarding landscapes and watersheds; iii) improving soil and water harvesting and water retention mechanisms; iv) improving ecosystem resilience through conserving biodiversity; v) enhancing sustainable forest management; vi) building social protection and livelihood options of vulnerable people; vii) developing efficient value chain and marketing systems; and viii) reinforcing adaptation research and development.
- **Nationally Determined Contribution (NDC, 2021):** The project will contribute to prioritized adaptation interventions outlined in the Updated NDC (2021) in the areas of: i) agriculture; ii) forestry; iii) land-use and natural resource management; iv) water; and v) energy.
- **Ethiopia's National Adaptation Program of Action (NAPA, 2007):** The project is aligned with several of the 11 prioritized potential adaptation measures identified in the NAPA. This includes potential adaptation measures focused on agriculture and food security, as well as those focused on water. For agriculture and food security, these interventions will include inter alia switching to different cultivars, improving and conserving soils, enhancing irrigation efficiency and/or expanding irrigation, and improving pest and disease forecast and control. In the water sector, interventions may include increasing water supply, e.g., by improving or stabilizing watershed management.
- **Climate-Resilient Green Economy Strategy (CRGE, 2011):** The project is also aligned with the goals of the CRGE, specifically with two of the four key Pillars of the strategy, namely to: i) improve crop and livestock production practices for higher food security and farmer income while reducing emissions; and ii) protect and re-establish forests for their economic and ecosystem services, including as carbon stocks.
- **Ten Years Perspective Development Plan (TYPDP, 2021-2030):** The proposed project will contribute to the target of increasing national forest coverage from 15.5% to 30%, and increasing the coverage of wildlife habitats from 8.6% to 14% of the country's area. It will also indirectly contribute to other targets, including increasing the number of enriched wildlife and biodiversity species, and increasing greenhouse gas emissions reduction. The project will build on the lessons learned from the monitoring and evaluation system developed for the TYPDP.
- **REDD+ Strategy (2008):** The project will align with four of the objectives of Ethiopia's REDD+ Strategy. These include: i) reducing GHG emissions and increase carbon removals; ii) increasing investments for sustainable forest management and forest restoration; iii) improving the functioning capacity of institutions; and iv) enhancing REDD+ co-benefits (improved livelihoods, ecological functions of landscape).
- **Long-Term Low Emission Economy Strategy (2020-2050):** The project will align with several elements of the Long-term Low Emission Economy strategy. This will include contributing towards the achievement of the Long-Term Net-Zero Emission and Climate-Resilience Development Pathways, ensuring gender and social inclusion in the net-zero and climate resilient pathways, and financing the net-zero and climate-resilient transition.
- **National Forest Sector Development Programme (NFSDP, 2016-2025):** The NFSDP is expected to serve as a master plan for enhancement of sustainable forest management in Ethiopia. The NFSDP outlines forest related policies and priority interventions in the forest sector in Ethiopia.
- **Ethiopia Strategic Investment Framework for Land Management (AUDA):** The Framework guides the prioritisation, planning and implementation of current and future investments in SLM by both the public and private sector. Its aim is to address the interlinked problems of poverty, vulnerability and land degradation at the rural community level. Through the Framework, the government and civil society stakeholders are working together to remove the barriers and promote upscaling of sustainable land management (SLM) within Ethiopia.
- **UN Common Country Analysis (CCA):** The proposed project contributes to the following factors, which by 2030 will support Ethiopia's achievement of the sustainable development goals (SDGs): i) coping structurally with climate change; ii) exiting a vicious cycle of recurring humanitarian crises; and iii) successful economic reforms that yield transformational results. During the PPG phase, the proponents will coordinate closely with UN Resident Coordinator and UN Country Team in Ethiopia to ensure strong alignment with and contribution to the implementation of Common Country Analysis priorities.
- **United Nations Sustainable Development Cooperation Framework (UNSDCF; 2020–2025) for Ethiopia:** The proposed project contributes to the following UNSDCF outcomes for Ethiopia; Outcome 3 — all people in Ethiopia benefit from an



inclusive, resilient and sustainable economy; and Outcome 4 — all people in Ethiopia live in a society resilient to environmental risks and adapted to climate change. During the PPG phase, the proponents will coordinate closely with UN Resident Coordinator and UN Country Team in Ethiopia to ensure strong alignment with and contribution to the implementation of UNSDCF priorities.

## Contribution to Kunming-Montreal Global Biodiversity Framework targets

The project will contribute to the following targets of the Kunming-Montreal Global Biodiversity Framework:

LDCF Priority Area		Alignment
Priority Area 1: Scaling up finance	Reinforcing policy coherence	Increasing collaboration between stakeholders in the forestry and agriculture sector through the establishment of a multistakeholder platform (Component 1);  Developing a resource-mobilisation and scaling strategy for climate-resilient GLI best practice (Component 4)
	Strengthening institutional capacity	Training of national-level institutions, and capacity building for district-level government officials (Component 1)
Priority Area 2: Strengthening Innovation and Private Sector Engagement	Advancing technology transfer, innovation and deployment	Upscaling the use of climate-resilient technologies for agriculture and forest restoration (Component 1);  Promotion of climate-resilient diversified livelihood options (Component 3);  Enhancing long-term monitoring, evaluation and reporting on GLI best practice (Component 4)
	Enabling the conditions for private sector action	Training for community members on value addition, and development of value chains for agricultural products in target areas (Component 3)
Priority Area 3: Fostering Partnership for inclusion and whole-of-society approach	Focusing on institutional strengthening and capacity building efforts at all levels	Strengthening institutional capacity of national-level institutions under; and  Building capacity of district-level governments for upscaling of GLI best practice (Component 1)
	Building partnerships with local organizations and systems to address social equity	Establishing a multistakeholder platform for upscaling of GLI best practices (Component 1);  Developing a knowledge management and communications strategy on GLI best practices (Component 4)
Target		Contribution of the project
<b>Target 1:</b> Ensure that all areas are under participatory, integrated and biodiversity inclusive spatial planning and/or effective management processes addressing land- and sea-use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of indigenous peoples and local communities.		As previously noted, Ethiopia is considered a global biodiversity hotspot. Under the proposed project, the loss of areas of high biodiversity importance will be reduced through participatory, integrated spatial planning and improved management processes. Specifically, this will be achieved by strengthening institutional capacity and the establishment of a multi-stakeholder platform for upscaling of GLI best practices under Component 1.
<b>Target 2:</b> Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.		The proposed project will contribute to this target through Component 2, which will include the restoration of degraded forests and the conservation of intact and restored forest.
<b>Target 6:</b> Eliminate, minimize, reduce and or mitigate the impacts of invasive alien species on biodiversity and ecosystem services by identifying and managing pathways of the introduction of alien species, preventing the introduction and establishment of priority invasive alien species, reducing the rates of introduction and establishment of other known or potential invasive alien		As part of restoration and reforestation interventions implemented under Component 2, the proposed project will promote the removal of invasive alien species. Moreover, the project will actively promote the use of indigenous species for reforestation and restoration activities.

<p>species by at least 50 per cent by 2030, and eradicating or controlling invasive alien species, especially in priority sites, such as islands.</p>	
<p><b>Target 8:</b> Minimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions, including through nature-based solutions and/or ecosystem-based approaches, while minimizing negative and fostering positive impacts of climate action on biodiversity.</p>	<p>The project will promote the advancement of biodiversity conservation and the sustainable management of forest land, with a specific focus on climate change adaptation. Thereby, the impacts of climate change on these areas will be reduced and positive impacts on biodiversity maximised.</p>
<p><b>Target 10:</b> Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity friendly practices, such as sustainable intensification, agroecological and other innovative approaches, contributing to the resilience and long-term efficiency and productivity of these production systems, and to food security, conserving and restoring biodiversity and maintaining nature's contributions to people, including ecosystem functions and services.</p>	<p>Under the proposed project, the sustainable management of agricultural and forest land will be actively promoted. This will be done by undertaking reforestation and forest conservation in target areas, as well as by promoting climate-resilient agriculture. The ultimate objective of these interventions is to enhance the delivery of ecosystem services, and to improve food and water security across rural Ethiopia under future climate conditions.</p>
<p><b>Target 11:</b> Restore, maintain and enhance nature's contributions to people, including ecosystem functions and services, such as the regulation of air, water and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and/or ecosystem-based approaches for the benefit of all people and nature.</p>	<p>The project has been specifically developed with the intention of restoring, maintaining and enhancing ecosystem services delivery, including the regulation of water, soil health, the reduction of impacts from natural hazards and disaster, and the promotion of ecosystem-based adaptation.</p>
<p><b>Target 20:</b> Strengthen capacity-building and development, access to and transfer of technology, and promote development of and access to innovation and technical and scientific cooperation, including through South-South, North-South and triangular cooperation, to meet the needs for effective implementation, particularly in developing countries, fostering joint technology development and joint scientific research programmes for the conservation and sustainable use of biodiversity and strengthening scientific research and monitoring capacities, commensurate with the ambition of the goals and targets of the Framework.</p>	<p>The proposed LDCF project will be strongly focussed on building the technical and institutional capacity of local communities for climate change adaptation. Moreover, the project will involve the transfer of relevant technologies to vulnerable communities to enhance their resilience to the impacts of climate change.</p>
<p><b>Target 21:</b> Ensure that the best available data, information and knowledge are accessible to decision makers, practitioners and the public to guide effective and equitable governance, integrated and participatory management of biodiversity, and to strengthen communication, awareness-raising, education, monitoring, research and knowledge management and, also in this context, traditional knowledge, innovations, practices and technologies of indigenous peoples and local communities should only be accessed with their free, prior and informed consent in accordance with national legislation.</p>	<p>Under Component 4 of the proposed project, the availability of data, information and knowledge will be enhanced. Specifically, the project will include the development of a long-term monitoring, evaluation and reporting system for climate-resilient GLI best practices, and a knowledge-management and communications strategy will be developed to improve the dissemination of information on GLI best practices.</p>
<p><b>Target 23:</b> Ensure gender equality in the implementation of the Framework through a gender-responsive approach, where all women and girls have equal opportunity and capacity to contribute to the three objectives of the Convention, including by recognizing their equal rights and access to land and natural resources and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making related to biodiversity.</p>	<p>The project has been developed with the objective of enhancing the climate resilience of vulnerable communities in rural Ethiopia, with a specific focus on women and the youth. Gender has been integrated across all components, and the advancement of equal rights, access to land, participation and leadership of women will be prioritised during the full project development to ensure that the project is gender-responsive.</p>

The proposed LDCF project contributes directly to the following 5 outcomes under the Climate action subprogramme of UNEP's Programme of Work for 2022-2023: 1.1 Policy/decision-making for climate action is informed by the latest science-based analysis and data generation; 1.4 Sectoral partnerships and access to technologies and solutions for decarbonization, dematerialization and resilience are enhanced; 1.5 Private and public financial flows are aligned with the goals of the Paris Agreement; 1.6 The private sector and financial markets apply sustainability and climate-friendly standards and norms as core values of the economy; and 1.7 Public support and political engagement for climate action are catalysed and linked with other agendas (for example, restoration). In addition, the project contributes to 4 outcomes under the Nature action subprogramme (outcomes 2.1, 2.2, 2.3 and 2.7). The project is housed under the "Adaptation and Resilience" Programme Coordination Project (PCP).

UNEP's comparative advantage vis-à-vis the proposed LDCF project centres around its position as the lead agency for environmental issues within the UN family, with a mandate to provide guidance for the world on environmental issues and assist with environmental best practices in the UN. As such, it is well positioned to implement this project focusing on Ecosystem-based Adaptation (EbA) approaches, and is in fact currently supporting over 45 EbA-focused projects around the world. This extensive experience means that UNEP can effectively build on a wealth of lessons learned across its portfolio of projects, and continuously improve performance in its projects to bring greater efficiency and effectiveness in implementation.

## D. POLICY REQUIREMENTS

### **Gender Equality and Women's Empowerment:**

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

### **Stakeholder Engagement**

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

### **Were the following stakeholders consulted during project identification phase:**

Indigenous Peoples and Local Communities: Yes

Civil Society Organizations: Yes

Private Sector: Yes

### **Provide a brief summary and list of names and dates of consultations**

After initial brainstorming sessions with GoE officials and UNEP representatives, the project development team visited Ethiopia for a two-week period during October 2023 for a series of consultations and field visits (see Figure 20 and Figure 21 below). The purpose of this mission was to, *inter alia*: i) foster buy-in and support from local stakeholders (government, local communities, etc.); ii) confirm that the proposed project does indeed align with Ethiopia's national and sectoral climate change adaptation needs and priorities; iii) strengthen the project context and baseline; iv) refine the project's rationale and design; v) identify barriers to the implementation of the proposed adaptation solution and understand how they can be best addressed; vi) ensure complementarity with relevant ongoing and planned initiatives; vii) scope potential co-financing opportunities; viii) identify and visit potential intervention sites; ix) understand the value add of and potential roles that institutional stakeholders can play in the project; x) fill gaps in information and data that are required to complete a robust PIF; and xi) identify information and data gaps to be filled during the detailed project design (PPG) phase. A summary of the stakeholder consultations undertaken during the PIF scoping mission is provided in Table 4, below.



Figure 20. Key stakeholders discussing LDCF Core Indicators during the working meeting on 16 October.

Figure 21. A discussion with community members (including members of the Watershed Management Committee) during the field visit to Hadho Kebele.

Table 4. Summary of stakeholder consultations during PIF scoping mission.

Date	Stakeholder group	Attendees
10-Oct-23	Ethiopia Forestry Development (EFD)	Dr Adefires Worku
16-Oct-23	Working meeting with key stakeholders (GEF project appraisal meeting)	Habtemariam Kassa (CIFOR-ICRAF) Yalemsew Adela (EFD/RIP) Talemos Data (EFD/RIP) Yilebitu Mogel (EFD/REDD+ coordinator) Kibruyesfa Sisay (EFD/UNDP) Adefires Worku (EFD/UNDP) Margaret Oduk (UNEP Addis Ababa office) Yigremachew Seyoum (WRI) Tilaye Nigussie (EFD/UNDP)
17-Oct-23	Follow-up working meeting	Habtemariam Kassa (CIFOR-ICRAF) Yalemsew Adela (EFD/RIP) Talemos Data (EFD/RIP) Yilebitu Moges (EFD/REDD+ coordinator) Kibris (Kibruyesfa Sisay) (EFD/UNDP) Adefires Worku (EFD/UNDP) Margaret Oduk (UNEP Addis Ababa office) Yigremachew Seyoum (WRI) Tilaye Nigussie (EFD/UNDP)
20-Oct	Field visit to a village in Hadho Kebele**, Bati District  **the lowest administrative level in Ethiopia	Yalemsew Adela (EFD/UNDP) Anna Kontorov (UNEP) Development Agents from Agriculture Bureau Members of the local Watershed Management Committee General community members (including women and the youth)
24-Oct	Ministry of Agriculture	Mr Habtamu Hailu (Programme Manager of SLM Programme)
24-Oct	GEF Operational Focal Point	Mr Mensur Dessie Nuri
26-Oct	Technical meeting with EFD	Dr Adefires Worku (EFD/UNDP)

In-depth stakeholder consultations will be undertaken during the full project development process (PPG phase), including with government authorities and institutions at national and local level, other potential project implementation partners, and project beneficiaries. Relevant civil society organizations (CSOs) will be fully engaged in the development of the project. This will include specific NGOs identified as potential partners for implementation, as well as agricultural cooperatives active in the selected project districts and sites, that will be engaged in the implementation of the project's climate-resilient agriculture and agroforestry interventions. Specifically, the engagement of the cooperatives in the project development process will be crucial for designing the interventions supporting agricultural and nature-based livelihoods and value chain development, including the selection of crops to be targeted, livelihoods and value chains to be strengthened, and climate-resilient agricultural practices (including those related to water resource management) to be introduced. Community cooperatives will also be engaged in the design of the collaborative forums to be set up in each project area under Output 1.1.3. Furthermore, as watershed management committees play an important role in regulating natural resource use and management at the local level, they will be fully consulted in the development of the project. At the national level, NGOs working in relevant areas and key consortia of NGOs such as the PHEEC will be consulted to learn from their experience and expertise, and to identify possibilities for collaboration and coordination between initiatives.

Various private sector actors will also be consulted in the development of the project, to strengthen their engagement in the project activities. Consultations with the private sector will be undertaken to better understand the barriers to private sector investment in climate change adaptation, to further develop the strategy for addressing Barrier 3 and to scope out the ways to engage the private sector in the development and operationalization of the adaptation finance scaling-up mechanism and resource mobilisation strategy under project Component 1. In addition, private sector actors will be engaged in consultations around the development of activities under Component 3, in particular to identify partners to support the value addition and market linkages for agricultural and nature-based products, access to finance, and capacity development and mentorship on financial management and entrepreneurship.

During the PPG phase, the proponents will also coordinate closely with UN Resident Coordinator and UN Country Team in Ethiopia to ensure contribution to relevant priorities.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

## Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

## Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

## Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Low			
Low			

## E. OTHER REQUIREMENTS

### Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

## ANNEX A: FINANCING TABLES

### GEF Financing Table

Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
UNEP	LDCF	Ethiopia	Climate Change	LDCF Country allocation	Grant	8,932,420.00	848,580.00	9,781,000.00
<b>Total GEF Resources (\$)</b>						<b>8,932,420.00</b>	<b>848,580.00</b>	<b>9,781,000.00</b>

### Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

200000

PPG Agency Fee (\$)

19000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNEP	LDCF	Ethiopia	Climate Change	LDCF Country allocation	Grant	200,000.00	19,000.00	219,000.00
<b>Total PPG Amount (\$)</b>						<b>200,000.00</b>	<b>19,000.00</b>	<b>219,000.00</b>

Please provide justification

### Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
<b>Total GEF Resources</b>					<b>0.00</b>

### Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CCA-1-1	LDCF	8,932,420.00	27500000
<b>Total Project Cost</b>		<b>8,932,420.00</b>	<b>27,500,000.00</b>

### Indicative Co-financing

Sources of Co- financing	Name of Co-financier	Type of Co- financing	Investment Mobilized	Amount(\$)
Recipient Country Government	EFD (GLI)	Grant	Investment mobilized	20000000

Recipient Country Government	REDD+ Investment Programme	Grant	Investment mobilized	2500000
Donor Agency	Building Resilience of Communities and Ecosystems in the Drylands of Ethiopia through Sustainable Forest Management (GCF)	Grant	Investment mobilized	5000000
<b>Total Co-financing</b>				<b>27,500,000.00</b>

Describe how any "Investment Mobilized" was identified

Co-financing from the Government of Ethiopia's ongoing and planned initiatives (GLI, RIP and the planned GCF project) that support forest landscape restoration and EbA, and align with the implementation period of the proposed project was tentatively identified through discussions with EFD. The GLI is an ongoing initiative and is just entering its second phase, while RIP has recently been allocated US\$25 million by the Swedish Government for the period 2024-2028. The GCF project is currently undergoing finalization and is anticipated to be implemented in parallel with the proposed LDCF-financed project.

## ANNEX B: ENDORSEMENTS

### GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	UNEP	10/18/2023	Victoria Luque Panadero	+ 25420762 4	victoria.luque@un.org

### Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Mensur Dessie Nuri	Director, MEAs Negotiation Coordination GEF Operational Focal Point	EPA / MOPD	10/18/2023

## ANNEX C: PROJECT LOCATION

Please provide geo-referenced information and map where the project interventions will take place



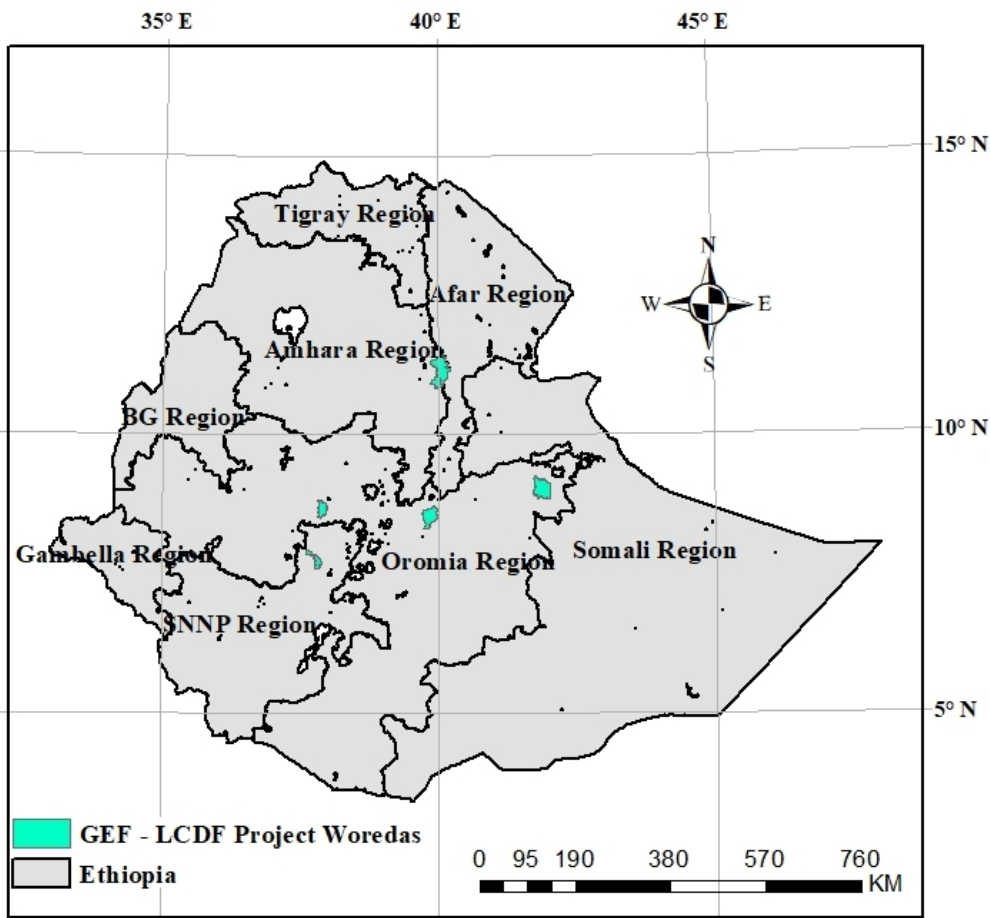


Figure C1. Proposed project target Districts (Woredas).

Table C1. Regions, zones and districts targeted under the proposed project.

Region	Zone	District
Oromia	Arsi	Merti
	Southwest Shewa	Wenchi
	East Harerge	Girawa
Amhara	South Wello	Bati
		Argoba
Central Ethiopia	Hadia	Misha

## ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title

Ethiopia UNEP\_LDCF PIF\_SRIF\_5 Dec 2023\_Final

## ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
No Contribution 0	Principal Objective 2	Significant Objective 1	Significant Objective 1

## ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
<b>X Influencing models</b>			
	<b>Transform policy and regulatory environments</b>		
	<b>X Strengthen institutional capacity and decision-making</b>		
	<b>X Convene multi-stakeholder alliances</b>		
	<b>X Demonstrate innovative approaches</b>		
	<b>Deploy innovative financial instruments</b>		
<b>X Stakeholders</b>			
	<b>Indigenous Peoples</b>		
	<b>X Private Sector</b>		
		X Capital providers	
		X Financial intermediaries and market facilitators	
		X Large corporations	
		X SMEs	
		X Individuals/Entrepreneurs	
		Non-Grant Pilot	
		Project Reflow	
	<b>X Beneficiaries</b>		
	<b>X Local Communities</b>		
	<b>X Civil Society</b>		
		X Community Based Organization	
		X Non-Governmental Organization	
		X Academia	
		Trade Unions and Workers Unions	
	<b>X Type of Engagement</b>		
		X Information Dissemination	
		X Partnership	
		X Consultation	
		X Participation	
	<b>X Communications</b>		
		X Awareness Raising	
		Education	
		X Public Campaigns	
		Behavior Change	

<b>X Capacity, Knowledge and Research</b>			
	<b>X Enabling Activities</b>		
	<b>X Capacity Development</b>		
	<b>X Knowledge Generation and Exchange</b>		
	<b>Targeted Research</b>		
	<b>X Learning</b>		
		X Theory of Change	
		X Adaptive Management	
		X Indicators to Measure Change	
	<b>X Innovation</b>		
	<b>X Knowledge and Learning</b>		
		X Knowledge Management	
		Innovation	
		X Capacity Development	
		X Learning	
	<b>X Stakeholder Engagement Plan</b>		
<b>X Gender Equality</b>			
	<b>X Gender Mainstreaming</b>		
		X Beneficiaries	
		X Women groups	
		X Sex-disaggregated indicators	
		X Gender-sensitive indicators	
	<b>X Gender results areas</b>		
		Access and control over natural resources	
		X Participation and leadership	
		Access to benefits and services	
		X Capacity development	
		X Awareness raising	
		Knowledge generation	
<b>X Focal Areas/Theme</b>			
	<b>Integrated Programs</b>		
		Commodity Supply Chains ([1] <sup>o</sup> Good Growth Partnership)	
			Sustainable Commodities Production
			Deforestation-free Sourcing
			Financial Screening Tools
			High Conservation Value Forests
			High Carbon Stocks Forests
			Soybean Supply Chain
			Oil Palm Supply Chain
			Beef Supply Chain
			Smallholder Farmers
			Adaptive Management
		Food Security in Sub-Sahara Africa	
			Resilience (climate and shocks)
			Sustainable Production Systems
			Agroecosystems
			Land and Soil Health
			Diversified Farming
			Integrated Land and Water Management
			Smallholder Farming
			Small and Medium Enterprises
			Crop Genetic Diversity
			Food Value Chains
			Gender Dimensions
			Multi-stakeholder Platforms
		Food Systems, Land Use and Restoration	
			Sustainable Food Systems
			Landscape Restoration
			Sustainable Commodity Production

			Comprehensive Land Use Planning
			Integrated Landscapes
			Food Value Chains
			Deforestation-free Sourcing
			Smallholder Farmers
		Sustainable Cities	
			Integrated urban planning
			Urban sustainability framework
			Transport and Mobility
			Buildings
			Municipal waste management
			Green space
			Urban Biodiversity
			Urban Food Systems
			Energy efficiency
			Municipal Financing
			Global Platform for Sustainable Cities
			Urban Resilience
	<b>Biodiversity</b>		
		Protected Areas and Landscapes	
			Terrestrial Protected Areas
			Coastal and Marine Protected Areas
			Productive Landscapes
			Productive Seascapes
			Community Based Natural Resource Management
		Mainstreaming	
			Extractive Industries (oil, gas, mining)
			Forestry (Including HCVF and REDD+)
			Tourism
			Agriculture & agrobiodiversity
			Fisheries
			Infrastructure
			Certification (National Standards)
			Certification (International Standards)
		Species	
			Illegal Wildlife Trade
			Threatened Species
			Wildlife for Sustainable Development
			Crop Wild Relatives
			Plant Genetic Resources
			Animal Genetic Resources
			Livestock Wild Relatives
			Invasive Alien Species (IAS)
		Biomes	
			Mangroves
			Coral Reefs
			Sea Grasses
			Wetlands
			Rivers
			Lakes
			Tropical Rain Forests
			Tropical Dry Forests
			Temperate Forests
			Grasslands
			Paramo
			Desert
		Financial and Accounting	
			Payment for Ecosystem Services
			Natural Capital Assessment and Accounting
			Conservation Trust Funds
			Conservation Finance

		Supplementary Protocol to the CBD	
			Biosafety
			Access to Genetic Resources Benefit Sharing
	<b>Forests</b>		
		Forest and Landscape Restoration	
			REDD/REDD+
		Forest	
			Amazon
			Congo
			Drylands
	<b>Land Degradation</b>		
		Sustainable Land Management	
			Restoration and Rehabilitation of Degraded Lands
			Ecosystem Approach
			Integrated and Cross-sectoral approach
			Community-Based NRM
			Sustainable Livelihoods
			Income Generating Activities
			Sustainable Agriculture
			Sustainable Pasture Management
			Sustainable Forest/Woodland Management
			Improved Soil and Water Management Techniques
			Sustainable Fire Management
			Drought Mitigation/Early Warning
		Land Degradation Neutrality	
			Land Productivity
			Land Cover and Land cover change
			Carbon stocks above or below ground
		Food Security	
	<b>International Waters</b>		
		Ship	
		Coastal	
		Freshwater	
			Aquifer
			River Basin
			Lake Basin
		Learning	
		Fisheries	
		Persistent toxic substances	
		SIDS : Small Island Dev States	
		Targeted Research	
		Pollution	
			Persistent toxic substances
			Plastics
			Nutrient pollution from all sectors except wastewater
			Nutrient pollution from Wastewater
		Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		Strategic Action Plan Implementation	
		Areas Beyond National Jurisdiction	
		Large Marine Ecosystems	
		Private Sector	
		Aquaculture	
		Marine Protected Area	
		Biomes	
			Mangrove
			Coral Reefs
			Seagrasses
			Polar Ecosystems
			Constructed Wetlands
	<b>Chemicals and Waste</b>		
		Mercury	

		Artisanal and Scale Gold Mining	
		Coal Fired Power Plants	
		Coal Fired Industrial Boilers	
		Cement	
		Non-Ferrous Metals Production	
		Ozone	
		Persistent Organic Pollutants	
		Unintentional Persistent Organic Pollutants	
		Sound Management of chemicals and Waste	
		Waste Management	
			Hazardous Waste Management
			Industrial Waste
			e-Waste
		Emissions	
		Disposal	
		New Persistent Organic Pollutants	
		Polychlorinated Biphenyls	
		Plastics	
		Eco-Efficiency	
		Pesticides	
		DDT - Vector Management	
		DDT - Other	
		Industrial Emissions	
		Open Burning	
		Best Available Technology / Best Environmental Practices	
		Green Chemistry	
	<b>X Climate Change</b>		
		<b>X Climate Change Adaptation</b>	
			Climate Finance
			X Least Developed Countries
			Small Island Developing States
			Disaster Risk Management
			Sea-level rise
			X Climate Resilience
			Climate information
			X Ecosystem-based Adaptation
			Adaptation Tech Transfer
			National Adaptation Programme of Action
			National Adaptation Plan
			Mainstreaming Adaptation
			Private Sector
			Innovation
			Complementarity
			X Community-based Adaptation
			X Livelihoods
		<b>Climate Change Mitigation</b>	
			Agriculture, Forestry, and other Land Use
			Energy Efficiency
			Sustainable Urban Systems and Transport
			Technology Transfer
			Renewable Energy
			Financing
			Enabling Activities
		<b>Technology Transfer</b>	
			Poznan Strategic Programme on Technology Transfer
			Climate Technology Centre & Network (CTCN)
			Endogenous technology
			Technology Needs Assessment
			Adaptation Tech Transfer
		<b>X United Nations Framework on Climate Change</b>	
			X Nationally Determined Contribution

		<b>Climate Finance (Rio Markers)</b>	X Paris Agreement
			X Sustainable Development Goals
			Climate Change Mitigation 1
			Climate Change Mitigation 2
			Climate Change Adaptation 1
			X Climate Change Adaptation 2

[1]